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ABSTRACT

Presented in this teacher's guide for grades 9-12 are lesson plans and ideas for integrating business education (general business, typing, shorthand, clerical and secretarial practice, and bookkeeping) and environmental education. Each lesson originates with a fundamental concept pertaining to the environment and states, in addition, its discipline area, subject area, and problem orientation. Following this, behavioral objectives and suggested learning experiences are outlined. Behavioral objectives include cognitive and affective objectives and skills to be learned, while learning experiences list student-centered in-class activities and outside resource and community activities. Space is provided for teachers to note resource and reference materials--publications, audio-visual aids, and community resources. The guides are supplementary in nature and the lessons or episodes are designed to be placed in existing course content at appropriate times. This work was prepared under an ESEA Title III contract for Project I-C-E (Instruction-Curriculum-Environment). (BL)

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Project I - C - E INSTRUCTION - CURRICULUM - ENVIRO

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Business Education GRADE 9-12

1. General Business
2. Typing I and II
3. Shorthand
4. Clerical & Secretarial Practice
5. Bookkeeping

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
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INSTRUCTION - CURRICULUM - ENVIRONMENT

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468-7464)

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PREFACE

"Oikus" for house is the Greek origin of the term "ecology" studies our house--whatever or wherever it may be. Like an u expand or contract to fit many ranges--natural and man-made. environments, our many "houses" if we omit rancor and cite lo complexities. Our "oikus" uses the insights of all subjects. multidisciplinary program like ours necessarily results. Als a long time, our program ranges K thru 12. The environment m values. These values have their origin in the "oikus" of our minds. Let us become masters of our house by replacing the G with "Know thyself and thine house."

1. Written and designed by your fellow teachers, this guide i to fit appropriately into existing, logical course content.
2. Each page or episode offers suggestions. Knowing your stu to adapt or adopt. Limitless chances are here for your ex Many episodes are self contained, some open-minded, still developed over a few days.
3. Try these episodes, but please pre-plan. Why? Simply, no and no curriculum will work unless viewed in the context o
4. React to this guide with scratch ideas and notes on the ep
5. After using an episode, fill out the attached evaluation f duplicate, or request more of these forms. Send them sing We sincerely want your reactions or suggestions--negative evaluations are the key in telling us "what works" and in the guides.

TERMS AND ABBREVIATIONS

ICE RMC is Project ICE Resource Materials Center serving al school districts in CESA 3, 8, and 9. Check the Project ICE resources. Our address and phone number is on this guide's c or call us for any materials or help.

BAVI is Bureau of Audio Visual Instruction, 1327 University Madison, Wisconsin 53701 (Phone: 608-262-1644).

Cognitive means a measurable mental skill, ability, or proce

Affective refers to student attitudes, values, and feelings.

PREFACE

is the Greek origin of the term "ecology". Environmental education whatever or wherever it may be. Like an umbrella, our house can to fit many ranges--natural and man-made. We can add quality to our any "houses" if we omit rancor and cite long range gains, costs, and oikus" uses the insights of all subjects. Thus, a rational, positive, rogram like ours necessarily results. Also, since attitudes grow over gram ranges K thru 12. The environment mirrors our attitudes or s have their origin in the "oikus" of our collective and individual ne masters of our house by replacing the Greek adage of "Know thyself" nd thine house."

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isode, fill out the attached evaluation form in the back. Use, uest more of these forms. Send them singly or collectively to us. your reactions or suggestions--negative and positive. Your he key in telling us "what works" and in aiding our revisions of

IONS

ICE Resource Materials Center serving all public and non-public CESA 3, 8, and 9. Check the Project ICE Bibliography of available ess and phone number is on this guide's cover. Feel free to write aterials or help.
Audio Visual Instruction, 1327 University Avenue, P. O. Box 2093, 3701 (Phone: 608-262-1644).
measurable mental skill, ability, or process based on factual data. o student attitudes, values, and feelings.

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Roland, Little Wolf
Rowe, Appleton
rgaret Sauer, Menasha
chaefer, Kaukauna
ll, Little Chute
tehr, Mt. Calvary (L)
Stuvetraa, Oshkosh
Switzer, Little Chute
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olf, Kimberly
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CONCEPT		
C O N C E P T	1. Energy from the sun, the basic source of all energy is converted through plant photosynthesis into a form all living things can use for life.	Discipline Area Bu Subject Ge Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Students will trace sun energy as it reaches earth, how stored, make use of by living organisms, use bulletin board display -- Produced, Used and Wasted Energy. Affective: Student will appreciate the sun's energy and green plants to survival of man and everyday activities. Skills to be Learned Development materialistic and functional display of energy materials. Panel discussion by student leaders or volunteers.	I. Student-Centered in class activity A. Students prepare materi in sequence as to sun energy to electric ligh bulb. 1. Is there any human o business activity that does not need sun energy? 2. Why we need green plants to make sun energy useful? 3. What is happening to earth's green plant B. Panel discussion on how business could use sun energy directly. 1. Solar cells - Develo ment. 2. Solar power plants. 3. As solar power devel how other forms of energy will be affe

om the sun, the basic

l energy is converted

t photosynthesis into

iving things can use for

Discipline Area Business Education

Subject General Business

Problem Orientation Source and Use of Electrical Power Grade 9-12

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
udents will gy as it how stored, living bulletin -- Produced, d Energy. udent will sun's energy ts to survival ryday activities.	I. Student-Centered in class activity A. Students prepare material in sequence as to sun energy to electric light bulb. 1. Is there any human or business activity that does not need sun energy? 2. Why we need green plants to make sun energy useful? 3. What is happening to earth's green plants? B. Panel discussion on how business could use sun energy directly. 1. Solar cells - Development. 2. Solar power plants. 3. As solar power developed, how other forms of energy will be affected.	II. Outside Resource and Community Activities A. Power companies at local level. B. Outside Reading 1. Sun energy into electrical power. 2. New developments into energy for individual and business.
earned terialistic l display of als. ion by student olunteers.		

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Place In the Sun and Living World, Darling, Lois & Louis, Morrow, 1960, $3.95 - (5745). Check Reader's Guide for Problems of International Sources - Energy and Transportation: Wall Street Journal Business Week U.S. News & World Report Fortune Magazine Audio-Visual: Sun's Energy (BAVI) #6949 Petroleum Associations films and filmstrips (Madison, WI) Community: Local representative of Power company as speaker. Petroleum association members. Gas Company representative.	

rials	Continued and Additional Suggested Learning Experiences
World, ow, oblems Energy and r s.	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 2. All living things or systems interact among themselves and their environment forming an intricate unit called an ecosystem.

Discipline Area Business Ec

Subject General Bus

Problem Orientation Balance Nature

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: The student will be able to orally list 3 industrial products that could be harmful to our ecosystem. Affective: Students curiosity aroused as he sees industries effect on our ecosystem. Skills to be Learned Critical Analysis of material Understanding of interaction between plants, animals and decay organisms Letter writing	I. Student-Centered in class activity A. What examples of air or water pollution could upset our ecosystem which consists of plants as food energy producers, animals as energy consumers and decay organisms recycling organic matter for plant use. B. Lead students in discussion of industries effect on our ecosystem. 1. Supplementary - How certain products could be harmful to our delicate balance of nature-uninvited additions. C. Study economic vs social environmental costs of agri-business use of land and soft pesticides. D. Introduce concept of regulatory agencies, enforcing environmental control regulations: 1. FDA 2. Dept. of Agri. 3. EPA 4. DNR (cont.)	II. Out Comm A. U i p g r n h e B. I f o f a s

systems

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intricate

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Discipline Area Business Education

Subject General Business

Problem Orientation Balance of Nature Grade 9-12

SUGGESTED LEARNING EXPERIENCES	
I. Student-Centered in class activity A. What examples of air or water pollution could upset our ecosystem which consists of plants as food energy producers, animals as energy consumers and decay organisms recycling organic matter for plant use. B. Lead students in discussion of industries effect on our ecosystem. 1. Supplementary - How certain products could be harmful to our delicate balance of nature-uninvited additions. C. Study economic vs social environmental costs of agri-business use of land and soft pesticides. D. Introduce concept of regulatory agencies, enforcing environmental control regulations: 1. FDA 2. Dept. of Agri. 3. EPA 4. DNR (cont.)	II. Outside Resource and Community Activities A. Use library to gather information for newspapers--articles that give account of local/regional air, water, noise pollution that has an effect on our ecosystem. B. Invite a representative from FDA (USDA) to talk on cyclamates or other food additives and to answer questions that students have prepared.

Resource and Reference Materials	Continued and Additi
Publications: Basic Speech Experiences, Clark Publishing Co. Introduction to the study of Animal Population, University of Chicago Press. USDA manuals on Pesticides. Farm Journals - articles on pesticide. Audio-Visual: Overhead transparency on additives and how they are used. "Gifts", A film in I-C-E Bibliography, Resource Center. Community: DNR Dept. of Agriculture Rep. (USDA)	I. (cont.) a. Develop sta 1. Effect o 2. Effect o and cons E. Introduce add foods as oppo front page.

eference Materials	Continued and Additional Suggested Learning Experiences
periences, ng Co. tle study ation, Chicago Press. Pesticides. articles on rency on ow they in I-C-E Resource Center. ture Rep.	I. (cont.) a. Develop statements: 1. Effect of DDT on cows' milk. 2. Effect of mercury contamination in fish and consumers. E. Introduce additions that man knowingly uses in foods as opposed to uninvited additives shown on front page.

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT		
C C N C E P T	3. Environmental factors are limiting on the number of organisms living within their influence, thus each environment has a carrying capacity.	Discipline Area Bus Subject Gen Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Students will calculate from zero capacity to maximum capacity of a specific area. Affective: Student will recognize that the business world's production capacity is limited. Idea of limited goods, unlimited wants - environment. Skills to be Learned Use of outline note taking. Comparison and analysis of data.	I. Student-Centered in class activity A. To develop a list of two other parallels, similar to those discussed in class. B. Compare the list of man's basic needs to that of business. 1. Industry and government. (Write a one page paper.) C. Analyze the basic needs into priority groups. Describe the difference between wants and needs. D. Use the simulation game to show concept of carrying capacity. E. A special project would be to take the present class, and with the help of another instructor, combine the two classes: 1. Each day make the clas a few larger until you have engulfed two classes into one class 2. Make students write a report on the changes that have to be made a (cont.)

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rying

Discipline Area Business Education

Subject General Business

Problem Orientation Carrying Capacity Grade 9-12

SUGGESTED LEARNING EXPERIENCES	
I. Student-Centered in class activity A. To develop a list of two other parallels, similar to those discussed in class. B. Compare the list of man's basic needs to that of business. 1. Industry and government. (Write a one page paper.) C. Analyze the basic needs into priority groups. Describe the difference between wants and needs. D. Use the simulation game to show concept of carrying capacity. E. A special project would be to take the present class, and with the help of another instructor, combine the two classes: 1. Each day make the class a few larger until you have engulfed two classes into one class. 2. Make students write a report on the changes that have to be made as (cont.)	II. Outside Resource and Community Activities A. Have community leaders, both private and public, speak to the students and give views of present population trends in the area. B. Have a local doctor discuss with the class, local population growth, pros and cons of birth control, effect on employment taxes, etc.

Resource and Reference Materials	Continued and Additiona
Publications: General Business, Southwestern Publishing Co. Populations, U. of C., Berkeley (110 Co) I-C-E Resource Center Audio-Visual: Simulation games from I-C-E Resource Center Man and His Environment Spaceship Game (Coca-Cola Co.) Community: Speakers - Local Areas Industry Business Medical	I. (cont.) population doubles (Use classroom as a

Is	Continued and Additional Suggested Learning Experiences
	I. (cont.) population doubles in a given area. (Use classroom as an example.)

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT: 4. An adequate supply of pure water is essential to life.

Discipline Area: Business Educat

Subject: General Busines

Problem Orientation: Water Polluti

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCE	
Cognitive: The students will be able to do research and give a written or oral report on their findings on water pollution in relationship to local business and agriculture production. Affective: Individuals should have an awareness of the problems of business, farming and society as a whole to good clean waters. Skills to be Learned Researching Listening Discussion Reporting Summarizing - Condensing	I. Student-Centered in class activity A. Students discuss the idea: "Business must provide some type of water pollution abatement." 1. The idea of Costs vs Pollution should be presented to class. B. Class to view films: 1. The Stream. 2. The Gifts. C. Prepare question sheet concerning the films. D. Students to research/prepare a paper showing the types and reasons for water pollution in the local area. E. Class divided into groups to alternate playing "Dirty Water" game.	II. Outside Community A. Field sewage B. Secure water abaten C. Interv local federa proble encour these 1. Wha doi pol 2. Wha sta 3. Who 4. Tim 5. Pla sta

oure

e.

Discipline Area Business Education

Subject General Business

Problem Orientation Water Pollution Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Students discuss the idea: "Business must provide some type of water pollution abatement."
   1. The idea of Costs vs Pollution should be presented to class.

B. Class to view films:
   1. The Stream.
   2. The Gifts.

C. Prepare question sheet concerning the films.

D. Students to research/prepare a paper showing the types and reasons for water pollution in the local area.

E. Class divided into groups to alternate playing "Dirty Water" game.

II. Outside Resource and Community Activities

A. Field trip to local sewage plant.

B. Secure a speaker on water pollution or abatement problem.

C. Interview management of local firms for future federal stand aids and problems which will be encountered in meeting these requirements:
   1. What is your company doing to diminish pollution?
   2. What are government standards?
   3. Who pays the cost?
   4. Time is of essence.
   5. Plan of approach in starting action.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Water Fit to Use, Carlson & Day, 1966. Water Pollution, G. Berg, Scientist's Institute EPA guidelines DNR publications, Wis. Cons. Bulletin Local newspapers Audio-Visual: Water Pollution - Filmstrip NEA The Gifts - I-C-E RMC The Stream - I-C-E RMC Dirty Water - I-C-E RMC A simulation game which provides the complexities of keeping local bodies of water in a normal state of ecological balance. Community: City Engineer - Local water dept. Local sewage treatment plant DNR UWGB Fish factory personnel Cheese plants Paper/pulp mills	

Materials	Continued and Additional Suggested Learning Experiences
on & Day, g, Cons.	
trip NEA	
ch ties of of water ecological	
ater dept. ewage ent plant	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT: 5. An adequate supply of clean air is essential for life.

Discipline Area: Business

Subject: General B

Problem Orientation: Air Pol

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE
Cognitive: Students will be able to identify area or regional industries having severe problems with air pollution. Student will be able to list 5 things he can do to combat air pollution. Affective: Student becomes aware of local air pollution problems.	I. Student-Centered in class activity A. Identify area industries having severe problems of air pollution. 1. Pulp and paper 2. Power plants 3. Foundries B. Teacher could put the following material on blackboard or transparency as major contributors to air pollution. 1. Automobiles 60% 2. Ind. Plants 16% 3. Power Plants 13% 4. Heating 7% 5. Incinerators C. What measures are used by agencies to combat air pollution. 1. Attorney General who uses public nuisance laws against industries. 2. Bureau of solid wastes - open burning in dumps. 3. Newly passed federal legislation aims (cont.)
Skills to be Learned Discussion techniques Observation of plants Research methods Secretarial recording of material Construction (typing) of report - typing is preferred for students of typing.	

II.

ty of clean

for life.

Discipline Area Business Education

Subject General Business

Problem Orientation Air Pollution Grade 9-12

ES	SUGGESTED LEARNING EXPERIENCES	
ill rea s s to lo on. l s.	I. Student-Centered in class activity A. Identify area industries having severe problems of air pollution. 1. Pulp and paper 2. Power plants 3. Foundries B. Teacher could put the following material on blackboard or transparency as major contributors to air pollution. 1. Automobiles 60% 2. Ind. Plants 16% 3. Power Plants 13% 4. Heating 7% 5. Incinerators C. What measures are used by agencies to combat air pollution. 1. Attorney General who uses public nuisance laws against industries. 2. Bureau of solid wastes - open burning in dumps. 3. Newly passed federal legislation aims (cont.)	II. Outside Resource and Community Activities A. Student observation of industries that contribute to air pollution in locality. From this observation, students would report orally, in class about what they observed. A class reporter could record and pass out summary sheets in one of the next class sessions. Assignment: From newspapers or research material, students obtain material or methods used to combat air pollution. From this research, write a 3-5 page report concerning "The Lessening of Air Pollution."
of ts		

Resource and Reference Materials

Publications:

Air Pollution Activities & Disasters

Vanishing Air, Ralph Nader Study Group, Grossman Pub., 1970.

Fresh Air, (See Geo. Howlett Library).

Survival Hand Book, Doug, LaFollette Pub., 1971.

Wis. Cons. Bulletin & Federal Standards, (Wis. Senators) Washington D.C.

Audio-Visual:

Film:

With Each Breath
Health Ed. Service
Box 7283 - Albany, N.Y.

Air Pollution - Take a Deep Breath
National Medical Aides-Visual Center
Chamblee, Ga. 30005

Community:

Local pollution inspector

Speakers from:

Paper mills
Foundries
Power plants

Continued and Additional Su

I. (cont.)

to severely limit
by 1976.

D. What can you as an in
pollution?
1. Use car only when
2. Don't burn leaves
3. Keep car well tune
4. Stop smoking.
5. Give up gas-powere
6. Use less products
burn coal to produ
7. Minimum horse powe
8. Shut off car engin
a. Waiting for tra
b. Deliveries bein

E. Student learns use of
working.
a. How to maintain go
b. Cost of air condit

ce Materials	Continued and Additional Suggested Learning Experiences
ties & h Nader an Pub., 1970. . Howlett Doug, 971. & Federal enators) N.Y. e a Deep ides- 05 ector	I. (cont.) to severely limit automobile exhaust emission by 1976. D. What can you as an individual do to combat air pollution? 1. Use car only when necessary. 2. Don't burn leaves or trash. 3. Keep car well tuned. 4. Stop smoking. 5. Give up gas-powered lawn mower, snowmobiles. 6. Use less products that require factories to burn coal to produce products. 7. Minimum horse power for auto. 8. Shut off car engine when long stops made. a. Waiting for train at crossing. b. Deliveries being made. E. Student learns use of proper air in office for working. a. How to maintain good air level. b. Cost of air conditioning in modern office.

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT	6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.	Discipline Area	Busi
		Subject	Gene Natu
		Problem Orientation	vs

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: Student will be able to identify and list 5 local businesses and the natural resources that they use. Affective: The student will become aware of the feelings business and industry have toward curtailing the use of natural resources.	I. Student-Centered in class activity A. Research each of the natural resources so the students will know where and how each resource originated and where it is found. B. List the various natural resources found and used in the businesses of the community. 1. Organize into small study groups (3-4 in a group). 2. Divide the local businesses into clusters that may be similar or dependent on others. C. Collect materials from classroom library/school library. 1. Each student spend at least 1 period in the library. 2. Organize data. D. Get the reactions from all groups in a classroom discussion on what (cont.)	II.
Skills to be Learned Researching Discussion Reporting Analyzing data Organization of data		

are not equally	Discipline Area	Business Education
earth or over	Subject	General Business
ect the geographic	Problem Orientation	Natural Resources vs Business
ty of life.	Grade	9-12

S	SUGGESTED LEARNING EXPERIENCES	
be st the will lings ave se	I. Student-Centered in class activity A. Research each of the natural resources so the students will know where and how each resource originated and where it is found. B. List the various natural resources found and used in the businesses of the community. 1. Organize into small study groups (3-4 in a group). 2. Divide the local businesses into clusters that may be similar or dependent on others. C. Collect materials from classroom library/school library. 1. Each student spend at least 1 period in the library. 2. Organize data. D. Get the reactions from all groups in a classroom discussion on what (cont.)	II. Outside Resource and Community Activities A. Visit local industry to find out what they are doing to conserve the natural resources that they use. B. Have community leaders in government and industry speak to class. 1. Give views on the effect natural resources have had on the area and in particular on the community.

Resource and Reference Materials	Continued and Additional S
Publications: General Business - Southwestern Publishing Co. National Wildlife Federation, 1971 EQ Index, I-C-E RMC 100 Bu Daydreams and Nightmares, I-C-E RMC Audio-Visual: Our Part in Conservation, McGraw Hill Our Vanishing Land, McGraw Hill Simulation game - Ecology; The Game of Man and Nature, I-C-E RMC Community: Local organizations and clubs State Dept. of Natural Resources Local business/government personnel Electrical utility Natural gas company Oil company Coal company	I. (cont.) they think the role in regard to our nat E. Identify resources a renewable. Also inc resources to any bus report.

als	Continued and Additional Suggested Learning Experiences
	I. (cont.) they think the role of business and industry is, in regard to our natural resources.
971	E. Identify resources as to renewable and non-renewable. Also include the importance of the resources to any business. Include this in report.
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RMC	
s nnel	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT

7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area

Subject

Problem Orientati

BEHAVIORAL OBJECTIVES	SUGGESTED LEA
Cognitive: Students will list orally the types of transportation, industry, and population in community at its founding. Affective: Students will become aware of local historical changes and possible reasons for such changes.	I. Student-Centered in class activity A. Divide class by committee Each committee will prese a short report on one of the following topics about the community. 1. Why it was started? 2. Why this location? 3. What businesses originally started her 4. What were the transpor tion economic conditio and population at that time? 5. How was the land used? B. Have group discussion on changes in land use. C. Discuss tax base in regar to change. D. Play simulation game on land use. E. Write a paper on movement to the suburbs.
Skills to be Learned Library work Discussion Organization Beginning land use analysis Beginning land use planning	

ors such as facilitating

rtation, economic conditions,

ion growth, and increased

Discipline Area Business Education

Subject General Business

Problem Orientation Economic Growth & Change Grade 9-12

tire have a great influence on
in land use and centers of population density.

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Students will the types of cion, industry, tion in t its founding. Students will re of local changes and easons for such	I. Student-Centered in class activity A. Divide class by committees. Each committee will present a short report on one of the following topics about the community. 1. Why it was started? 2. Why this location? 3. What businesses originally started here? 4. What were the transportation economic conditions, and population at that time? 5. How was the land used? B. Have group discussion on changes in land use. C. Discuss tax base in regard to change. D. Play simulation game on land use. E. Write a paper on movement to the suburbs.	II. Outside Resource and Community Activities A. Resource person on zoning and future land use. B. Use library for research. C. Current articles from newspaper on zoning and land use. D. Local body of government agency on zoning laws and planning of future land still not developed for business and industry. E. Sanitary land fill questions: Where should it be located? How does it work? What better ways are there to save the land? F. Tour some of the recreational sites.
e Learned ck on land use analysis land use planning		

Resource and Reference Materials	Continued and Addit
Publications: VF Environmental Science Center, Give Earth a Chance series, I-C-E RMC VF Scientists Institute for Public Information, I-C-E RMC VF A Handbook for Environmental Action, I-C-E RMC C.O.G. Information & Regional Comm. of Upper Fox Wolf System	
Audio-Visual: Man at Bay, I-C-E RMC BAVI catalog	
Community: Chamber of Commerce Local college/university environmental instructor DNR representative Planning/Zoning commission Wis. Dept. of local affairs and development	

e Materials	Continued and Additional Suggested Learning Experiences
e Center, ries, for C-E RMC onmental gional f System

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area Business

Subject General Bu
Measuren

Problem Orientation Economic

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: Student will state in writing, the current level of Gross National Product, the % of growth in the last year and the definition and purpose of GNP. Affective: Student will become aware of the difference between qualitative measurement and quantitative measurement in determing national wealth. Skills to be Learned Preparing charts and graphs Composing and relating facts to concepts Problem solving Group discussion	I. Student-Centered in class activity A. Students prepare charts showing GNP over the past 40 years. 1. Charts should define GNP. 2. Charts should plot GNP over time. B. Students write an essay (2 page maximum) relating resources to GNP. 1. List natural resources used up. 2. Capital needs to provide goods and services. 3. Human resources needed. C. Discuss American focus on GNP as a measure of national health when it is an advantage of "free goods" (water, air). Material value system vs Human value system D. Write letters to U.S. Senators concerning current legislation on environment.	II. Out Comm A. U r B. P c 1 c 1 2 3 C. S p d q 1 (b h

, social,

determine

s and

environment.

Discipline Area Business Education

Subject General Business

Problem Orientation Measurement of Economic Growth Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Students prepare charts showing GNP over the past 40 years.
   1. Charts should define GNP.
   2. Charts should plot GNP over time.

B. Students write an essay (2 page maximum) relating resources to GNP.
   1. List natural resources used up.
   2. Capital needs to provide goods and services.
   3. Human resources needed.

C. Discuss American focus on GNP as a measure of national health when it is an advantage of "free goods" (water, air). Material value system vs Human value system

D. Write letters to U.S. Senators concerning current legislation on environment.

II. Outside Resource and Community Activities

A. Use library for research.

B. Panel discussion for class on quality of life in local community.
   1. Doctor
   2. Politician (local)
   3. Businessman

C. Students could role play a panel discussion on the quality of life in local community. (How to develop, but maintain a healthy environment.)

Resource and Reference Materials	Continued and Additional Sug
Publications: Bureau of Census Report U.S. News and World Report Wall Street Journal Business Week Fortune	
Audio-Visual: Simulation game - Ecology, I-C-E RMC Later - Perhaps, I-C-E RMC The Environmental Crisis, I-C-E RMC	
Community: Land developer	

rence Materials	Continued and Additional Suggested Learning Experiences
eport d Report l	
Ecology,	
-C-E RMC Crisis,	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT: 9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area: Busin

Subject: Gener

Problem Orientation: Co of

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP
Cognitive: Through varied types of discussion and writings, students will show how man changes his surroundings. Affective: Students will acknowledge the many problems in disposing of solid waste.	I. Student-Centered in class activity A. Student teacher discussion: 1. Resources from soil a. Production of food How has this changed the land? b. Highways How did the materials used change environment? c. How have minerals extracted changed the environment? 2. Water changes a. What changes have taken place in water conditions? b. Status of solid waste in relation to water? c. How solids are treated today. B. Write a summary on the questions and discussion.
Skills to be Learned Research projects Group participation	

II.

ity to manage,

nge his

Discipline Area Business Education

Subject General Business

Problem Orientation Conquest of Nature Grade 9-12

ES	SUGGESTED LEARNING EXPERIENCES	
ed s l f	I. Student-Centered in class activity A. Student teacher discussion: 1. Resources from soil a. Production of food How has this changed the land? b. Highways How did the materials used change environment? c. How have minerals extracted changed the environment? 2. Water changes a. What changes have taken place in water conditions? b. Status of solid waste in relation to water? c. How solids are treated today. B. Write a summary on the questions and discussion.	II. Outside Resource and Community Activities A. Sewerage treatment plants 1. Visit local plant 2. How are solids disposed of? 3. Personnel of plant to explain his plant's operation to class. B. Solid waste disposal - no reusables 1. Burying of burnable materials 2. Open face dumps and burning 3. Operation of sanitary land fills C. Solid waste - usable 1. Recycling, paper, glass, cans & iron products 2. Get local civic leader to explain recycling program. 3. Visit a recycling plant. (cont.)

Resource and Reference Materials	Continued and Additional Suggested
Publications: Reference books, magazines & newspapers about products made and waste produced DNR bulletins and articles I-C-E RMC	II. (cont.) D. Industrial plants 1. What is being done with t 2. How does waste affect a f 3. What are some ways of red
Audio-Visual: The Gifts, I-C-E RMC Garbage, I-C-E RMC	
Community: DNR personnel County land planner Business leaders	

ials	Continued and Additional Suggested Learning Experiences
	II. (cont.) D. Industrial plants 1. What is being done with the waste? 2. How does waste affect a firm's profit? 3. What are some ways of reducing wastes?

CONCEPT			
	10. Short-term economic gains may produce long-term environmental losses.	Discipline Area	Busi
		Subject	Gene B
		Problem Orientation	Or

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Students will list and describe in-plant practices which can be harmful to the employees and the corrective action that could take place. Affective: Student will understand that industry can control its pollution within the plant for the welfare of its employees and still maintain a fair profit.	I. Student-Centered in class activity A. Have students indicate some industries which have put short-term gains ahead of the welfare of its employees. B. What products have been produced in mass quantity that could possibly cause long-term environmental losses? C. Lead discussions on: Are these previously discussed industries and products more harmful or beneficial to society as a whole? D. How harmful are in-plant practices to employees for some industries? 1. Steel workers - sulfur dioxide poisoning 2. Agricultural workers - pesticides 3. Painters, dry cleaners - benzine odors 4. Textile workers - breathing lint particles (cont.)
Skills to be learned Discussion Participation Analysis of classroom participation Making judgments Letter writing	II.

ESEA Title III - 59-70-0135-2 Project I-C-E

m economic gains may

-term environmental

Discipline Area Business Education

Subject General Business
Business

Problem Orientation Organization Grade 9-12

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
ts will in- hich the corrective take	I. Student-Centered in class activity A. Have students indicate some industries which have put short-term gains ahead of the welfare of its employees. B. What products have been produced in mass quantity that could possibly cause long-term environmental losses? C. Lead discussions on: Are these previously discussed industries and products more harmful or beneficial to society as a whole? D. How harmful are in-plant practices to employees for some industries? 1. Steel workers - sulfur dioxide poisoning 2. Agricultural workers - pesticides 3. Painters, dry cleaners - benzine odors 4. Textile workers - breathing lint particles (cont.)	II. Outside Resource and Community Activities A. Speaker from DNR on use of wooden area for a development project.
t will ndustry ollution for the mployees n a		
ned		
room		

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Wisconsin Survival Handbook, I-C-E RMC The User's Guide to Protection of the Environment, Paul Swantek, 1970 Audio-Visual: Film: Bulldozed America Carousel Films, Inc. 1501 Broadway New York, N.Y. 10035 Community: Representative from DNR Representative from local industry	I. (cont.) 5. Miners - black lung dise 6. Migrant workers - the s includes their poor phys E. Students could write to th key committee at the state F. The class should decide on be worded and what proposa

ials	Continued and Additional Suggested Learning Experiences
n ntek,	I. (cont.) 5. Miners - black lung disease 6. Migrant workers - the social environment includes their poor physical environment E. Students could write to the chairman of some key committee at the state and federal level. F. The class should decide on how the letter should be worded and what proposals should be made.

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT		
11. Indivicual acts, duplicated or compoundéd, produce significant environmental alterations over time.	Discipline Area	Business
	Subject	General
	Problem Orientation	Deplet Reso

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE
Cognitive: Student will choose an economic resource and explain, through his choice of media, how individual consumption is eliminating this resource. Affective: Student will become aware of the fact that natural resources are limited and must be widely used.	I. Student-Centered in class activity A. Group discussion 1. Status of available natural resources a. Natural 1. Surface land 2. Within land 3. Water areas 4. Air 2. Human resources 3. Capital B. How can natural resources be consumed? 1. Recycling 2. Conservation 3. Basic need for product C. Students to prepare report on natural resources. 1. They can choose their own type of media (oral, written, film-strip). a. Gather materials b. Organize data *Note: Discussion format 1. Each discussion should have a clearly stated and developed goal. (cont.)
Skills to be Learned Report preparing Graphs Speech presentation Analyzing data Organizing data Researching	II. O Co A. B. C. D. D.

al acts, duplicated or

produce significant

l alterations over time.

Discipline Area Business Education

Subject General Business

Problem Orientation Depletion of Resources Grade 9-12

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ent will mic plain, ice of vidual eliminating ent will the fact sources must be	I. Student-Centered in class activity A. Group discussion 1. Status of available natural resources a. Natural 1. Surface land 2. Within land 3. Water areas 4. Air 2. Human resources 3. Capital B. How can natural resources be consumed? 1. Recycling 2. Conservation 3. Basic need for product C. Students to prepare report on natural resources. 1. They can choose their own type of media (oral, written, filmstrip). a. Gather materials b. Organize data *Note: Discussion format 1. Each discussion should have a clearly stated and developed goal. (cont.)	II. Outside Resource and Community Activities A. Visit recycling companies for metal and glass. B. Paper usage on large scale. 1. Have a visitation to a paper company for reusable paper. C. Get local groups to promote conservation. 1. Does recycling pay? D. Short research on what other parts of the country are doing on environmental study. 1. Use library D. Field trips 1. Green Bay Packaging 2. Fort Howard Paper 3. U.S. Paper 4. Bergstrom Paper 5. Neenah Foundry 6. Kothe Foundry
arned ng tion		

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Community Ecological Organization, P.O. Box 844, Oshkosh, Wi. 54901	I. (cont.) 2. Provide time for adequate summa the discussion.
Audio-Visual: Urban Sprawl #1487 BAVI Seeds of Destruction, Color, #3327, BAVI Expanding City, #3849, BAVI Conservation of Natural Resources, BAVI	
Community: Speakers: Paper producing companies UWGB instructors CESA 9 - George Howlett	

s	Continued and Additional Suggested Learning Experiences
n, l	I. (cont.) 2. Provide time for adequate summary to finalize the discussion.
s,	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual rights of others.

Discipline Area Business

Subject General Bu

Problem Orientation Land us

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	II.
Cognitive: Students will orally present, in a discussion, present and future land use problems. Write a 1 page paper on "Land Ethics". Affective: Students will understand problems of business concerns in relationship to the concept "Land Ethics".	I. Student-Centered in class activity A. Divide students into small groups. 1. Compile a list of present land use problems of businesses. 2. Predict future land use problems of businesses. B. Have a group discussion of present and future problems. C. Small groups geographically illustrate conclusions from class display. D. Discuss questions of private gain vs community service responsibility.	
Skills to be Learned Creative thinking Group discussion Research Writing Reporting facts Listening		

ip must be

rdship and should

r violate the

f others.

Discipline Area Business Education

Subject General Business

Problem Orientation Land use Planning Grade 9-12

VES	SUGGESTED LEARNING EXPERIENCES	
11 d ns. n 11	I. Student-Centered in class activity A. Divide students into small groups. 1. Compile a list of present land use problems of businesses. 2. Predict future land use problems of businesses. B. Have a group discussion of present and future problems. C. Small groups geographically illustrate conclusions from class display. D. Discuss questions of private gain vs community service responsibility.	II. Outside Resource and Community Activities A. Have a person from local government speak on young laws, city ordinances, and licenses that limit and regulate business concerns. B. Collect newspaper and magazine articles on restrictions of business use. 1. Have student give an extra credit report on these articles. C. For a long range report, students could note in a given area the type of land posted for no trespassing. Contact owners to see why it is posted, as open areas for recreation are needed for population increase.

Resource and Reference Materials	Continued and Additional Sug
Publications: Community Planning Handbook, I-C-[illegible] RMC Sand County Almanac, Aldo Leopold, local library	
Audio-Visual: Using Community Resources, I-C-[illegible] RMC All of the People All the Time, #3345 BAVI	
Community: City Planning Commission Speakers: City manager Representative DNR City engineer	

Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area: Busi

Subject: Typi
Po

Problem Orientation: &

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: The student will be able to type the material at a 50 wpm rate for 5 minutes with no more than 5 errors. Affective: Students will appreciate the basic source of energy as related to life.	I. Student-Centered in class activity A. After interviews, type the reports. 1. Take timings a. 1 minute b. 3 minutes c. 5 minutes d. Record 2. Proofread a. Circle each error b. Analyze each error c. Record 3. Sort out each key concept of each paragraph by underscoring. a. List each student's concept on board. b. Break down and sort for basic ten or twelve c. Discuss each concept as it is selected. d. Use each sentence as 12 second interval timings.
Skills to be Learned Research Interviewing Typing Proofreading	

y from the sun, the basic

f all energy, is converted

plant photosynthesis into a

living things can use for life

s.

Discipline Area Business Education

Subject Typing I and II

Problem Orientation Power Consumption & Distribution Grade 9-12

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
The student will type the material rate for 5 h ro more than Students will the basic source s related to	I. Student-Centered in class activity A. After interviews, type the reports. 1. Take timings a. 1 minute b. 3 minutes c. 5 minutes d. Record 2. Proofread a. Circle each error b. Analyze each error c. Record 3. Sort out each key concept of each paragraph by underscoring. a. List each student's concept on board. b. Break down and sort for basic ten or twelve c. Discuss each concept as it is selected. d. Use each sentence as 12 second interval timings.	II. Outside Resource and Community Activities A. Collect data relevant to the use of power consumption and distribution. 1. Industrial 2. Business 3. Chemical producing 4. Agricultural data 5. A living process B. Interview a businessman and type up a report for use in class and timings. 1. Also may consider an official of the Public Utility Company - electrical power and gas.
e learned g g		

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: Newspapers Magazines 110 Ca Introduction to Environment, I-C-E RMC VF Planning For an Ecological Unit Course, I-C-E RMC	
Audio-Visual: #7431 Business Office BAVI Simulation Game, Ecology, I-C-E RMC	
Community: Businessman Public Utility Company eg. Public Service	

terials	Continued and Additional Suggested Learning Experiences
vironment, ical Unit	
VI I-C-E RMC	

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT

2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area: Business

Subject: Typing I

Problem Orientation: Water Qu… Contr…

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE…	
Cognitive: Students will identify causes by reading and typing two articles concerning water pollution. Affective: Students will appreciate reasons for maintaining clean water. Skills to be Learned Collection of data Summarizing Handwriting Typing Proofreading	I. Student-Centered in class activity A. Collect two articles covering water pollution from any magazine, newspaper, etc. B. Write a summary on the article during free time. C. Type summary of article from rough draft. D. Take timed writings on finished copy.	II. Cu… Con… A. B. C. D.

g organisms interact

ives and their

forming an intricate

n ecosystem.

Discipline Area Business Education

Subject Typing I and II

Problem Orientation Water Quality Control Grade 9-12

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
nts will by reading rticles pollution.	I. Student-Centered in class activity A. Collect two articles covering water pollution from any magazine, newspaper, etc. B. Write a summary on the article during free time. C. Type summary of article from rough draft. D. Take timed writings on finished copy.	II. Outside Resource and Community Activities A. Observe conditions of the local river and write up a summary. B. Have science teacher come in and talk on problems of local water pollution. Write and type summary of talk. C. Type letters to congressmen showing you concern of local water quality control. D. Type letters to the Bureau of National Resources requesting information regarding water pollution.
nts will ns for n water.		
rned ta		

Resource and Reference Materials	Continued and Addi
Publications: Weekly magazines on pollution to be checked for source material An Alternative Future for America I-C-E RMC VF A Primer on Waste Water Treatment I-C-E RMC Water Pollution, I-C-E RMC	
Audio-Visual: City Water Supply #0433 BAVI The Gifts, I-C-E IMC Teacher may want to check other listings of conservation and environment films from the I-C-E RMC vertical file	
Community: Business leader Science teacher	

e Materials	Continued and Additional Suggested Learning Experiences
llution to be erial for America	
ater Treatment	
RMC	
3 BAVI	
eck other ion and n the I-C-E	

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT

3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area Busines

Subject Typing

Problem Orientation Ca

Ca

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX
Cognitive: Students will list dwindling environmental resources and the reasons for their decline. Affective: Students will distinguish what man really needs, what he wants and why.	I. Student-Centered in class activity A. Have a class discussion, analyzing an environmental problem illustrating limited capacity. B. Each student will prepare a research manuscript on the above problem(s). C. After exchanging papers, the students will check for errors and then return papers for revision. D. A group of students will prepare a bulletin board on environmental capacity limits.
Skills to be Learned Collection of data Sorting Critical analysis Researching Composing	

I

l factors are limiting

of organisms living

fluence, thus, each

a carrying capacity.

Discipline Area Business Education

Subject Typing I and II

Problem Orientation Carrying Capacity Grade 9-12

TIVES	SUGGESTED LEARNING EXPERIENCES	
s will iron- nd the decline. s will an he	I. Student-Centered in class activity A. Have a class discussion, analyzing an environmental problem illustrating limited capacity. B. Each student will prepare a research manuscript on the above problem(s). C. After exchanging papers, the students will check for errors and then return papers for revision. D. A group of students will prepare a bulletin board on environmental capacity limits.	II. Outside Resource and Community Activities A. Use library to find material needed for research paper or any other place the student feels he can find valuable information. B. Students will contact local DNR representative and school science teacher to have them speak to the class. C. Students can bring clippings from local newspapers or magazines to class for a bulletin board.
ed		

Resource and Reference Materials	Continued and Additional Suggest
Publications: Local, regional newspapers Magazines The Environmental Handbook, I-C-E RMC VF Scientists Institute for Public Information; Environmental Cost of Electric Power, I-C-E RMC	
Audio-Visual: Alone in the Midst of the Land; A Collection of Films about the Destruction of Man's Environment, I-C-E RMC Vertical File Listing Kit: KT 6 Crisis of the Environment I-C-E RMC	
Community: DNR Representative County Soil Agent Real Estate Agent/Broker	

nls	Continued and Additional Suggested Learning Experiences
olic st	
; A ent, ing t	

CONCEPT

4. An adequate supply of pure water is essential for life.

Discipline Area: Business

Subject: Typing I

Problem Orientation: Polluted

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERI	II.
Cognitive: The student will be able to name specific areas of water pollution, its causes and ways in which he and his classmates can help stop pollution. Affective: Students will become more aware of the causes of water pollution and ways in which he can help stop pollution.	I. Student-Centered in class activity A. Show filmstrip on water pollution. B. Students discuss filmstrip and apply their own experience. 1. Evidence of lakes and river pollution 2. Possible causes of pollution 3. Steps they can take to help stop pollution 4. Steps they can take to encourage others to help stop pollution C. Take typing timings on material having to do with water pollution.	C A B
Skills to be Learned Improving typing speed and accuracy Effective thinking		

of pure

life.

Discipline Area Business Education

Subject Typing I and II

Problem Orientation Polluted Water Grade 9-12

	SUGGESTED LEARNING EXPERIENCES	
1 ch	I. Student-Centered in class activity A. Show filmstrip on water pollution. B. Students discuss filmstrip and apply their own experience. 1. Evidence of lakes and river pollution 2. Possible causes of pollution 3. Steps they can take to help stop pollution 4. Steps they can take to encourage others to help stop pollution C. Take typing timings on material having to do with water pollution.	II. Outside Resource and Community Activities A. Obtain articles from local newspapers. B. Students watch for pollution of streams or lakes near their homes, farms, vacation sites, etc.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Timing Material, Madison Business College, 215 W. Washington, Madison, Wi. 53703 National Wildlife, 1971 EQ Index, I-C-E RMC VF What You Can Do About Water Pollution, I-C-E RMC VF Clean Water - It's Up to You, I-C-E RMC Audio-Visual: Films: Lakes - Aging & Pollution #3967 BAVI Water Pollution #7875 BAVI What Are They Doing to Our World? #7251 BAVI Kit: KT12 Ecology: Water Pollution I-C-E RMC Filmstrip: Environmental Pollution...Our World in Crisis, I-C-E RMC Simulation Games: Ecology, I-C-E RMC Dirty Water, I-C-E RMC Community:	

ontinued and Additional Suggested Learning Experiences

CONCEPT 5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Area Business

Subject Typing I

Problem Orientation Air Po

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	II. O Co
Cognitive: Students will write to the U.S. representative in their district requesting action for cleaner air. Affective: Students will become motivated into thinking of ways he can help stop air pollution. Skills to be Learned Letter writing Filing	I. Student-Centered in class activity A. Students write letters in draft form, long hand or type. 1. Proofread letters and make necessary corrections. 2. Prepare typewriter for typing and make up carbon pack. 3. Type original and carbon 4. Mail the original to their representative. 5. File the carbon copy. B. For one-quarter of the school term, develop a bulletin board on news articles taken from newspapers, local, state and national level.	A. B. C. D.

clean air

t organisms

n respiration,

their food.

Discipline Area Business Education

Subject Typing I & II

Problem Orientation Air Pollution Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Students write letters in draft form, long hand or type.
      1. Proofread letters and make necessary corrections.
      2. Prepare typewriter for typing and make up carbon pack.
      3. Type original and carbon
      4. Mail the original to their representative.
      5. File the carbon copy.
   B. For one-quarter of the school term, develop a bulletin board on news articles taken from newspapers, local, state and national level.

II. Outside Resource and Community Activities
   A. Students read several sources of air pollution in the library.
   B. Write a letter from summary to know what to explain to your representative.
   C. View types of air pollution locally.
   D. Report to class on findings of air pollution.

Resource and Reference Materials	Continued and Additi
Publications: Air and Water Pollution, I-C-E RMC Conserving Our Waters & Cleaning Up the Air,(Teachers Guide & Students Manual) I-C-E RMC Air Pollution: Where Are We Going? I-C-E RMC Dirty Air, Environmental Science Center series I-C-E RMC Air Pollution, Scientists Institute for Public Information I-C-E RMC Audio-Visual: KT 6 Crisis of the Environment I-C-E RMC Air Pollution BAVI Community: Local planners Visit local manufacturing firms to observe air pollution	

ials	Continued and Additional Suggested Learning Experiences
-E RMC ning &	
Going?	
ence	
stitute -E RMC	
nt	
rms	

CONCEPT	6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.	Discipline Area	Busines
		Subject	Typing
		Problem Orientation	Distr Natura

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	II. C
Cognitive: Student will be able to center each line with 99% accuracy, using natural resource terms. Affective: Student will be able to recognize terms related to natural resources and the unequal distribution of natural resources.	I. Student-Centered in class activity A. Type an exercise of terms relative to natural resources. 1. Type 25 lines 2. Each line must be centered horizontally 3. Entire exercise centered in reading position. B. Proofread and make corrections. C. Show film, tracing the production of paper from its origin to finished product of typing paper. D. Discuss recycled typing paper, emphasizing the need to conserve our natural resources. E. Students to type an answer to the following question: 1. Can we have progress without destroying the environment? Reasons. Note: Suggested list of terms on reverse side.	Co A. B. C.
Skills to be Learned Centering Proofreading Data collection Comparison Typing		

t equally

or over

uality of life.

Discipline Area Business Education

Subject Typing I & II

Problem Orientation Distribution of Natural Resources Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Type an exercise of terms relative to natural resources.
      1. Type 25 lines
      2. Each line must be centered horizontally
      3. Entire exercise centered in reading position.
   B. Proofread and make corrections.
   C. Show film, tracing the production of paper from its origin to finished product of typing paper.
   D. Discuss recycled typing paper, emphasizing the need to conserve our natural resources.
   E. Students to type an answer to the following question:
      1. Can we have progress without destroying the environment? Reasons.

Note: Suggested list of terms on reverse side.

II. Outside Resource and Community Activities
   A. Use a dictionary to collect natural resource terms to type.
   B. Classify according to length.
   C. Obtain recycled paper in various stages from mill.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: The Environmental Crisis, I-C-E RMC Natural Resources for U. S. Growth, Hans H. Landsberg, John Hopkins Press. Audio-Visual: A list of films on paper production can be obtained from a local paper company Community: Paper samples of different stages Paper mills/converting plant	Some suggested terms solar energy pulp forest management aluminum minerals crude oil watershed natural gas zinc anthracite coal ore oxygen class I soil open pit mining strip mining magnesium uranium timber copper

als	Continued and Additional Suggested Learning Experiences
RMC owth, ns	Some suggested terms solar energy pulp forest management aluminum minerals crude oil watershed natural gas zinc anthracite coal ore oxygen class I soil open pit mining strip mining magnesium uranium timber copper
tion aper	
es	

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT

7. Factors such as facilitating transportation, economic conditions, population growth, and increased time have a great influence on changes in land use and centers of population density.

Discipline Area Du

Subject Ty

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Students will be able to identify areas of greater population density and list the reasons and effects of high population density upon life. Affective: Students will realize an increasing population growth will effect life and our economic system, whether the student lives in an area of high population or not. Skills to be learned Column Heading Centering Tabulation Margin setting Composing letters Dictionary work	I. Student-Centered in class activity A. Students discuss table to be typed as to regions with larger population, the factors causing areas to be high in population, effect of increased population growth upon leisure time, land use and noise. B. Students set up properly and type tabulation consisting of the largest U.S. areas, population and rank. C. Compose letters to State Board of Transportation requesting information on any new approach about pending road construction in the state and what areas are being developed.

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omic conditions,

nd increased time

ce on changes in land
opulation density.

Discipline Area Business Education

Subject Typing I & II

Problem Orientation Population Density Grade 9-12

ES	SUGGESTED LEARNING EXPERIENCES	
II eas y ll opu- ect udent gh	I. Student-Centered in class activity A. Students discuss table to be typed as to regions with larger population, the factors causing areas to be high in population, effect of increased population growth upon leisure time, land use and noise. B. Students set up properly and type tabulation consisting of the largest U.S. areas, population and rank. C. Compose letters to State Board of Transportation requesting information on any new approach about pending road construction in the state and what areas are being developed.	II. Outside Resource and Community Activities A. Student will check the library for current periodicals for information about: 1. Growth of leisure time facilities in the past ten years. 2. Park usage 3. Noise pollution (Students will arrange data in proper order for typing tabulation. B. Students contact county officials to compare over-all growth in all areas. Also contact Chamber of Commerce of various communities within the county for more information.

Resource and Reference Materials	Continued and Additional Suggested
Publications: World Almanac 1970 census report National Wildlife Federation, 1971 EO Index, p. 9, I-C-E RMC The Traffic Jam, I-C-E RMC The City as a Community, I-C-E RMC Audio-Visual: Spaceship Without a Skipper, I-C-E RMC Kit: KT 6 Crisis of the Environment, I-C-E RMC Filmstrip: Biology - The Ecological Crisis Population Trends, I-C-E RMC Community: Chamber of Commerce City Manager Local doctor Local park manager	

ontinued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT	8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	Discipline Area Subject Problem Orientat

BEHAVIORAL OBJECTIVES	SUGGESTED LEA
Cognitive: Student will be able to type an exercise using terms related to values. Affective: Student will be able to recognize terms related to man's values and attitudes toward his environment.	I. Student-Centered in class activity A. Type an exercise in problem form of terms related to values. 1. Twenty lines in length 2. Three columns 3. Ten spaces between columns 4. Vertical centering B. Proofread 1. Circle errors 2. Analyze C. Show film on landfill area 1. Discuss with the class ten basic ways students can help eliminate this waste, correlating this with values. 2. Have students type a master carbon. Note: Some suggested terms needs wants stewardship conservation preservation beautification land ethic management recycling quality o life-styl
Skills to be Learned Tabulation Vertical centering Typing	

, social, and

ermine status

ttitudes

t.

Discipline Area Business Education

Subject Typing I & II

Problem Orientation Land Use Conflict Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Type an exercise in problem form of terms related to values.
   1. Twenty lines in length
   2. Three columns
   3. Ten spaces between columns
   4. Vertical centering

B. Proofread
   1. Circle errors
   2. Analyze

C. Show film on landfill area.
   1. Discuss with the class, ten basic ways students can help eliminate this waste, correlating this with values.
   2. Have students type a master carbon.

Note: Some suggested terms

needs
wants
stewardship
conservation
preservation
beautification
land ethic
management
recycling
quality of life
life-style

II. Outside Resource and Community Activities

A. Take a trip to a landfill area.

B. Obtain film on landfill areas.

C. Construct a map, pin point various landfill areas.
   1. Bring advantages and disadvantages.

C. Get diversified view points from agriculture and commercial people and write a report.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Pamphlets & booklets from Wis. Dept. of Natural Resources Free booklets from U.S. Dept. of Agriculture	
Audio-Visual: Land Betrayed, #6878 BAVI Land, #5529-5530 BAVI	
Community: Learn names of development companies and invite speakers to class to explain why a section of land is being used for a special project.	

ls	Continued and Additional Suggested Learning Experiences
on	

CONCEPT		
	9. Man has the ability to manage, manipulate, and change his environment.	Discipline Area Subject Problem Orientat

BEHAVIORAL OBJECTIVES	SUGGESTED LEA
Cognitive: Student makes an outline on how man can manipulate the environment. Affective: Students are motivated to thinking about their environment at present and the course to pursue for future preservation.	I. Student-Centered in clas activity A. Outline preparation 1. Discuss environment changes with member of class. 2. Prepare an outline. 3. Using prepared outl type the report. 4. Student papers can posted on bulletin board. B. Follow-up: Student cou use data on land chang in his immediate environment. C. Write a final report o how man manipulates th environment.
Skills to be Learned Prepare outline Typing Recall facts	

he ability to manage,	Discipline Area	Business Education
and change his	Subject	Typing I & II
	Problem Orientation	Manipulation Grade 9-12

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ident makes an man can environment. dents are hinking about nt at present to pursue servation.	I. Student-Centered in class activity A. Outline preparation 1. Discuss environmental changes with members of class. 2. Prepare an outline. 3. Using prepared outline, type the report. 4. Student papers can be posted on bulletin board. B. Follow-up: Student could use data on land changes in his immediate environment. C. Write a final report on how man manipulates the environment.	II. Outside Resource and Community Activities A. Possible sources: 1. Area planning commission 2. Government development of land use - state and federal 3. Local government on zoning laws 4. Newspapers to obtain articles on recent ways man is manipulating/changing his environment.
earned e		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Highlights, DNR publications, I-C-E RMC Our Man-Made Environment, I-C-E RMC America the Raped, I-C-E RMC Trash is Taking Over, I-C-E RMC Audio-Visual: Film: Wisconsin Manufacturing & Mining, BAVI Kits: KT 4 Man in His Environment, I-C-E RMC KT 5 Aggradation - Degradation, I-C-E RMC Community: Member of local government Member of area planning committee	

terials	Continued and Additional Suggested Learning Experiences
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MC E RMC	
Mining,	
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ation,	
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ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT: 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area: Business

Subject: Typing I

Problem Orientation: Short-te / Long-ter / Environ

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIE
Cognitive: Students will compose a 2-3 page manuscript with a title page, answering the following questions: What is more important - higher GNP or a better environment? Is it possible to have both, an increasing GNP and a better, cleaner environment? Affective: Students will be able to evaluate the present growth of GNP as compared to the present and questionable future of the environment.	I. Student-Centered in class activity A. An open discussion on the question of GNP growth vs environmental decline. B. Students to compose a short paragraph on the purpose of the paper which they are to write (letter of transmittal). C. Students to research and type up the 2-3 page paper, with title page on the question discussed in class.
Skills to be Learned Tabulation Composing Researching Critical analysis Preparing graphs Preparing a title paper	

II. C / A / B / C / D

ıic gains may

vironmental

Discipline Area Business Education

Subject Typing I & II

Problem Orientation: Short-term Gains / Long-term Environment

Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. An open discussion on the question of GNP growth vs environmental decline.
   B. Students to compose a short paragraph on the purpose of the paper which they are to write (letter of transmittal).
   C. Students to research and type up the 2-3 page paper, with title page on the question discussed in class.

II. Outside Resource and Community Activities
   A. Use the library in researching report.
   B. Students will tour local employment commission and local industry to interview personnel and observe methods production.
   C. A group of students to gather materials for a bulletin board comparing GNP vs Environment.
      1. Contact federal agencies dealing with GNP
      2. City manager
   D. Have a math teacher speak to class or ask for information you need from him.

Resource and Reference Materials	Continued and Additional Sugge
Publications: National Wildlife Federation, 1971 EQ Index, I-C-E RMC VF Congressional Record, Feb. 10, 1970, I-C-E RMC Audio-Visual: Simulation games: SG 1 Smog: The Air Pollution Game I-C-E RMC SG 2 Ecology; The Game of Man and Nature, I-C-E RMC Wanted for Murder, 1970 poster Film: Men at Bay, #250, I-C-E RMC Community: City manager Local businessmar Local industrialists	

ials	Continued and Additional Suggested Learning Experiences
10,	
Game n and	

CONCEPT	11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.	Disci Subje Probl

BEHAVIORAL OBJECTIVES	SUGG
Cognitive: Student will be able to type a modified block, mixed punctuation business letter on waste disposal with 95% accuracy. Affective: The student will appreciate the need to conserve products to eliminate the need for waste.	I. Student-Centered activity A. Students type a a local employe various aspects disposal and wh company has don solve the probl 1. Use block fo 2. Use mixed pu B. Show a film on disposal. C. Show on overhea parencies, the in spacing of s doubled spaced emphasizing the space saved by spacing. 1. Type short r single space 2. Type short r double space 3. Compute the lines saved. 4. Show the amo that is save out this is typing stude Use both sid paper.
Skills to be Learned Interviewing Typing Composing	

ESEA Title III - 59-70-0135-2 Project I-C-E

ects, duplicated or

duce significant

terations over time.

Discipline Area Business Education

Subject Typing I & II

Problem Orientation Waste Disposal Grade 10-12

TIVES	SUGGESTED LEARNING EXPERIENCES	
will be fied ation waste ent need s to for	I. Student-Centered in class activity A. Students type a letter to a local employer on the various aspects of waste disposal and what that company has done to help solve the problem. 1. Use block form 2. Use mixed punctuation B. Show a film on waste disposal. C. Show on overhead transparencies, the difference in spacing of single and doubled spaced reports, emphasizing the amount of space saved by single spacing. 1. Type short report single spaced. 2. Type short report double spaced. 3. Compute the amount of lines saved. 4. Show the amount of waste that is saved by pointing out this is one way typing students can help. Use both sides of typing paper.	II. Outside Resource and Community Activities A. Interview local businessman and have him give the recent ways they have employed to help solve the waste disposal problem. 1. Construct in business letter form 2. Construct in work copy form B. Tour a paper mill to see the way by-products are handled and recycled.
d		

Resource and Reference Materials	Continued and Additional Sugg
Publications: Local newspaper articles on recycled products or attemps to form a recycled process type business	
Audio-Visual: Junk Dump, I-C-E RMC Garbage, I-C-E RMC Stuff We Throw Away, #7923 BAVI	
Community: Business executive Local paper mill/converting plant	

	Continued and Additional Suggested Learning Experiences
ed	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT		
C O N C E P T	12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual rights of others.	Discipline A Subject Problem Orie

BEHAVIORAL OBJECTIVES	SUGGESTED
Cognitive: Student will be able to align the typewritten letter on private ownership with 90% accuracy. Affective: The student will become aware of the concept of private ownership.	I. Student-Centered in c activity A. Type from a snowmob club manual. 1. Student types a from manual omit certain letters. 2. Take paper out o typewriter. 3. Reinsert sheet. 4. Align the sheet. 5. Type in the miss letters. B. Project transparenc snowmobile club pur 1. Point out the se where private pr should be respec 2. Discuss the ways which students c show respect for private ownershi
Skills to be Learned Alignment Paper insertion Paper removal	

p must be

dship and should

violate the

others.

Discipline Area Business Education

Subject Typing I & II

Problem Orientation Private Ownership Grade 10-12

S	SUGGESTED LEARNING EXPERIENCES	
be tten hip ill cpt	I. Student-Centered in class activity A. Type from a snowmobile club manual. 1. Student types a page from manual omitting certain letters. 2. Take paper out of the typewriter. 3. Reinsert sheet. 4. Align the sheet. 5. Type in the missing letters. B. Project transparency of snowmobile club purpose. 1. Point out the section where private property should be respected. 2. Discuss the ways in which students can show respect for private ownership.	II. Outside Resource and Community Activities A. Student will find a snowmobile club manual containing rules and regulations governing private ownership and bring it to class. B. Interview a person who has had numerous amounts of damage done to his property. Report to the class. C. Ask representative of a snowmobile club to speak to class.

Resource and Reference Materials	Continued and Addition
Publications: Obtain a copy of laws regulating snowmobiles in Wisconsin and other states	
Audio-Visual: Contact local snowmobile dealers for film on snowmobiling Check DNR for a film on use/abuse of snowmobiles on the environment	
Community: DNR representative Snowmobile club member Community recreation leader	

ıls	Continued and Additional Suggested Learning Experiences
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use ment	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area Business

Subject Shorthand

Power

Problem Orientation & Dist

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	
Cognitive: Students are given a report to punctuate, capitalize, hyphenate and use numbers with at least 70% accuracy in transcription. Affective: The report used would show the energy used to gain a point in everyday living.	I. Student-Centered in class activity A. Students are given 10 sentences on energy to: 1. Punctuate 2. Capitalize 3. Write numbers correctly 4. Spell words correctly B. Sentences are corrected and returned to students. They are then used for discussing energy. C. Energy terms are used in development of crossword puzzles. D. Discuss how shorthand employees use more energy today than 20 yrs. ago in doing their daily work. Why?	II. Out Comm A. H e s e w p B. S a O A c a e a h
Skills to be Learned Points of communication Punctuation Capitalization Numbers Hyphen Oral discussion Vocabulary		

asic source Discipline Area Business Education

through Subject Shorthand

form all Problem Orientation Power Consumption & Distribution Grade 10-12

e processes.

SUGGESTED LEARNING EXPERIENCES

Student-Centered in class activity

A. Students are given 10 sentences on energy to:
   1. Punctuate
   2. Capitalize
   3. Write numbers correctly
   4. Spell words correctly
B. Sentences are corrected and returned to students. They are then used for discussing energy.
C. Energy terms are used in development of crossword puzzles.
D. Discuss how shorthand employees use more energy today than 20 yrs. ago in doing their daily work. Why?

II. Outside Resource and Community Activities

A. Have an engineer in energy resources speak to class and explain how an office worker uses energy to perform daily work.
B. Students can obtain a list from the County Agriculture Agent regarding the crops grown in the area that need extensive sunlight and is used for human food.

Resource and Reference Materials	Continued and Add
Publications: Current newspapers, periodicals and pamphlets found in school library on energy National Wildlife Magazine for Oct.-Nov. 1971, p. 10 illustration, Your Life Depends on the Sun	
Audio-Visual: Film: Green Plants and Sunlight, BAVI #6743	
Community: Engineer in energy resource County Agriculture Agent	

Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT

2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Ar

Subject

Problem Orien

BEHAVIORAL OBJECTIVES	SUGGESTED
Cognitive: Given a test, the student will get 95% accuracy on the spelling, 100% accuracy on the shorthand outline and transcription of notes and correctly identify terms and their use in the sentence. Affective: Student will begin to appreciate the dependency of one thing upon another in every aspect of life.	I. Student-Centered in cl activity A. Students will be giv spelling test. B. Students will be tau by use of an overhea to illustrate the pr procedure in writing environmental terms shorthand. C. The class will then the meanings of envi mental terms and the correct use. D. Students will constr sentences using the discussed in class. Note: Partial list o terms listed on the reverse side.
Skills to be Learned Spelling Taking shorthand notes Shorthand outline construction Vocabulary Typing	

Discipline Area Business Education

t, Subject Shorthand

Problem Orientation Balance of Nature Grade 10-12

SUGGESTED LEARNING EXPERIENCES	
-Centered in class nts will be given a ing test. nts will be taught, e of an overhead, llustrate the proper dure in writing the onmental terms in hand. lass will then discuss eanings of environ- l terms and their ct use. nts will construct 3 nces using the terms ssed in class. Partial list of listed on the se side.	II. Outside Resource and Community Activities A. Students will research the origin of the environmental terms discussed in class. Use the library. B. Students will take notes (in shorthand) on a speech given by a DNR representative about the interrelationship of organisms in the environment. 1. After the speech, students will use their transcription for discussion.

Resource and Reference Materials	Continued and Additional Su
Publications: Current newspaper articles in which certain environmental terms are used 110 Ec Investigations into Ecology, I-C-E RMC 110 Br Interaction and Systems, I-C-E RMC	Partial list of terms: Ecology Environment Ecosystem Pollution Recycling Biomass Land Ethic Pesticides Limnology Herbicides Toxic Conservation Resources a. natural b. renewable Photosynthesis
Audio-Visual: Ecology, simulation game, I-C-E RMC This Vital Earth, #2359 EAVI	
Community: DNR representative	

rials	Continued and Additional Suggested Learning Experiences
in l Ecology, ems,	Partial list of terms: Ecology Environment Ecosystem Pollution Recycling Biomass Land Ethic Pesticides Limnology Herbicides Toxic Conservation Resources a. natural b. renewable Photosynthesis

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT	3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.	Discipline Area Busines Subject Shortha Problem Orientation Ca Ca

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: Students will be able to correctly compose shorthand outlines from written environmental material. Affective: Students will come to appreciate good environmental management techniques.	I. Student-Centered in class activity A. Students will bring in an article about some type of management of environmental techniques. B. Using shorthand skills previously learned, have students write the above mentioned article in shorthand. C. The class will discuss the articles about environmental management techniques. D. Students will type shorthand notes in manuscript style.
Skills to be Learned Research skill Group interaction Shorthand outline Construction	

al factors are limiting
of organisms living
influence, thus, each
s a carrying capacity.

Discipline Area Business Education

Subject Shorthand

Problem Orientation Carrying Capacity Grade 10-12

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
ts will tly outlines ronmental ts will e good agement	I. Student-Centered in class activity A. Students will bring in an article about some type of management of environmental techniques. B. Using shorthand skills previously learned, have students write the above mentioned article in shorthand. C. The class will discuss the articles about environmental management techniques. D. Students will type shorthand notes in manuscript style.	II. Outside Resource and Community Activities A. Use library to help prepare and find articles. B. Students can gather materials for a bulletin board titled "Carrying Capacity". 1. Sources: a. Industry b. DNR c. Business d. Land developer 2. Students will prepare all titles for bulletin board in shorthand figures.
rned		

Resource and Reference Materials	Continued and Additiona
Publications: Refer to Project I-C-E bibliography for sources which the teacher may present to the students in researching the article	
Audio-Visual: Challenge to Mankind, #0330 BAVI	
Community: DNR Industry Business	

ace Materials	Continued and Additional Suggested Learning Experiences
C-E bibliography he teacher may ents in icle	
d, #0330 BAVI	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT: 4. An adequate supply of pure water is essential for life.

Discipline Area: Business Edu

Subject: Shorthand

Problem Orientation: Water Con

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERI	
Cognitive: Students will list facts they observed on bad water conditions and methods of improvement. Affective: Students will appreciate the need for clean water and the steps being taken to preserve clean water. Skills to be Learned Shorthand notes Transcription Punctuation Capitalization Report forms	I. Student-Centered in class activity A. After a class field trip, students and teacher discuss reports. Discussion centers around: 1. Points of interest observed on field trip 2. Problems/solutions B. Compose a letter to learn what research is being done in the area. Plan to send these to: 1. Firms concerned with water usage 2. Government agencies C. Revise typed letters and students make corrections. D. Mail letters to firms or agencies selected.	II. Out Comm A. P s t p j n B. F p 1 2 3 4

f pure

life.

Discipline Area Business Education

Subject Shorthand

Problem Orientation Water Conditions Grade 10-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. After a class field trip, students and teacher discuss reports. Discussion centers around:
   1. Points of interest observed on field trip
   2. Problems/solutions

B. Compose a letter to learn what research is being done in the area. Plan to send these to:
   1. Firms concerned with water usage
   2. Government agencies

C. Revise typed letters and students make corrections.

D. Mail letters to firms or agencies selected.

II. Outside Resource and Community Activities

A. Paper mill representative to speak to class on what pure water means to job opportunities in paper making industry.

B. Field trips to area plants.
   1. Paper mills bordering Fox River
   2. Canning companies
   3. Milk plants
   4. Sewerage treatment plants

Resource and Reference Materials	Continued and Additional Suggested L
Publications: Everyman's Guide to Ecological Living Water is Everybody's Business The Environmental Crisis All available at I-C-E RMC	
Audio-Visual: Film: Littering, DNR resources Madison, Wi. Kits: KT6 Crisis of the Environment, I-C-E RMC	
Community: Speakers from a Paper mill Cannery Milk plant Sewerage treatment plant	

erials	Continued and Additional Suggested Learning Experiences
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3	
nment,	

ESEA Title III - 59-70-0135-2 Project I-C-2

CONCEPT 5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Area Bu

Subject Sh

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: Students will list effects air pollution has on our lives and the ways in which air pollution is being controlled. Affective: Students will be able to appreciate the need for clean air and realize that steps are being taken to control air pollution.	I. Student-Centered in class activity A. Show filmstrip on air pollution. B. Students, with some research, will compose a letter to companies in NE Wisconsin, asking businessmen what they are doing about air pollution. C. Upon revision and selection of the 10 best letters, the teacher will dictate them to the class. D. Students will transcribe shorthand notes, type and proofread. 1. Prepare letters for mailing and mail them to the correct business.
Skills to be Learned Dictation Transcription Punctuation Spelling Capitalizatior Proofreading Research Typing Composition	

ate supply of clean air

l becaus most organisms

oxygen, through respiration,

the energy in their food.

Discipline Area Business Education

Subject Shorthand

Problem Orientation Dirty Air Grade 10-12

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
dents will ir pollution ves and the air pollution olled. dents will be ciate the need and realize being taken r pollution.	I. Student-Centered in class activity A. Show filmstrip on air pollution. B. Students, with some research, will compose a letter to companies in NE Wisconsin, asking businessmen what they are doing about air pollution. C. Upon revision and selection of the 10 best letters, the teacher will dictate them to the class. D. Students will transcribe shorthand notes, type and proofread. 1. Prepare letters for mailing and mail them to the correct business.	II. Outside Resource and Community Activities A. Speakers from local industries. 1. Paper mills eg. Fort Howard 2. Car dealers eg. Van Boxtel Ford B. Students will take notes on speeches in shorthand and transcribe. C. Field trips to local paper mill, to observe the amount of air pollution, and the controls being used. 1. Students will take shorthand notes and transcribe later in the classroom. D. Bulletin board will be prepared from letters and returned answers. Titles can be prepared in shorthand.
Learned		

Resource and Reference Materials	Continued and Additional S
Publications: VF 1969 Clean Air For Your Community VF 1969 Take 3 Giant Steps to Clean Air VF 1969 Air Pollution - Where We Are Going All available at I-C-E RMC	
Audio-Visual: Kits KT6 Crisis of the Environment, I-C-E RMC	
Community: Industry leaders Auto sales businessman Trucking firms City official in charge of health conditions in given community	

rials	Continued and Additional Suggested Learning Experiences
e	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area E

Subject S

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Students will list the areas where Wisconsin has depleted its resources and present environment results. Affective: Students will become aware of Wisconsin's present status in terms of its capacity of its environmental resources.	I. Student-Centered in class activity A. Class discussion or findings derived from interviews. B. Added activities 1. Take part in a mock job interview. 2. Leadership role could be developed. Have a panel discussion.
Skills to be Learned Interview techniques Shorthand note taking Group interaction	

esources are not equally

over the earth or over

atly affect the

onditions and quality of life.

Discipline Area Business Education

Subject Shorthand

Problem Orientation Ecological Problems of Urban Society Grade 10-12

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ents will where depleted its present sults.	I. Student-Centered in class activity A. Class discussion or findings derived from interviews. B. Added activities 1. Take part in a mock job interview. 2. Leadership role could be developed. Have a panel discussion.	II. Outside Resource and Community Activities A. Interview government or local business leaders for opinions on victimizing the residents of Wisconsin on our natural resources. (Can it be called robbery?) B. Take notes in short-hand and bring to class for transcribing. C. Summary of all findings could be put into the school newspaper and local paper under school news. D. Commercial fishing as a resource to means of making a living, and its present and future status as a resource from Great Lakes. 1. Information can be obtained from DNR, Madison, Wi.
dents will Wisconsin's in terms of its resources.		
arned riques taking ion		

Resource and Reference Materials	Continued and Additional Suggest
Publications: The Environmental Crisis, Man's struggle to live with himself, I-C-E RMC	
Audio-Visual: Simulation game - Man In His Environment, I-C-E RMC	
Community: Local business leaders	

Materials	Continued and Additional Suggested Learning Experiences
s, Man's himself,	
n His	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Student will identify changes in land use in his community and cite reasons for such changes. Affective: Students become aware of changes that are taking place concerning land use and population changes and the effect these changes will have upon him. Skills to be learned Improvement of shorthand vocabulary Improvement in shorthand speed Note taking from talks and interviews Make judgments Draw conclusions Interviewing	I. Student-Centered in class activity A. Students are assigned to find census figures for community or township for 1970, 1960, 1950, etc. 1. Discuss with reference to homebuilding, number of farms, size of farms, new manufacturing, airports or resort facilities. 2. Speaker from the community can add facts to the above period. B. Report on interview trying to draw conclusions as to effect on students today and in the near future. C. Word study involved in dictating material on changes in land use. D. Dictation of material concerning changes in land use.

ch as facilitating

n, economic conditions,

owth, and increased

Discipline Area Business Education

Subject Shorthand

Problem Orientation Causes & Effects of land use changes Grade 10-12

have a great influence on
nd use and centers of population density.

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
nt will in land nity and such nts become that are ncerning ulation effect ll have	I. Student-Centered in class activity A. Students are assigned to find census figures for community or township for 1970, 1960, 1950, etc. 1. Discuss with reference to homebuilding, number of farms, size of farms, new manufacturing, airports or resort facilities. 2. Speaker from the community can add facts to the above period. B. Report on interview trying to draw conclusions as to effect on students today and in the near future. C. Word study involved in dictating material on changes in land use. D. Dictation of material concerning changes in land use.	II. Outside Resource and Community Activities A. Students interview sources for census: 1. Newspapers 2. Older residents 3. Local historians 4. Museum curator 5. Representative of city, county or state historical society
rned horthand horthand talks		

Resource and Reference Materials	Continued and Additio
Publications: Man in The Web of Life, I-C-E RMC Urban America, The Ecological Balance, p. 163. I-C-E RMC Technology - The God That Failed, I-C-E RMC	
Audio-Visual: KT5 Crisis of the Environment, I-C-E RMC Expanding City, #3849 BAVI	
Community: Chamber of Commerce official President of local real estate board in city County planner for small rural area	

ference Materials	Continued and Additional Suggested Learning Experiences
of Life, I-C-E RMC The Ecological 3. I-C-E RMC e God That Failed,	
he Environment, #3849 BAVI	
rce official al real estate for small rural	

CONCEPT	8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	Discipline Area Subject Problem Orientati

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: Students will list ways in which dense population centers promote heavy pollution. Affective: Students will appreciate the need for zoning and population control.	I. Student-Centered in class activity A. With an overhead projecto show a transparency of p. 1971 EQ Index. B. Have students discuss the transparency and pick out certain terms to learn ho to write in shorthand and use in sentences. C. Students assigned (in sho hand written on board) a poem about concept #8 to be composed by them.
Skills to be Learned Composition Shorthand outline Group interaction Transcription Typing	

conomic, social, and

ors determine status

s and attitudes

ironment.

Discipline Area Business Education

Subject Shorthand

Problem Orientation Pollution density Grade 10-12

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
ts will n dense s promote ts will ed for tion	I. Student-Centered in class activity A. With an overhead projector, show a transparency of p. 9, 1971 EQ Index. B. Have students discuss the transparency and pick out certain terms to learn how to write in shorthand and use in sentences. C. Students assigned (in shorthand written on board) a poem about concept #8 to be composed by them.	II. Outside Resource and Community Activities A. Bulletin board display of poems. 1. Use titles that are written in shorthand. B. Local doctor to speak on population growth. 1. Students to take notes on speech in shorthand. 2. After the speech, students will transcribe and type in outline form. C. Students do a research paper on how density of population has affected the cultural values of people - large city living. D. Interview a person who has moved from the city to a rural area.
ned		

Resource and Reference Materials	Continued and Addit
Publications: National Wildlife Federation, 1971 EQ Index, Oct. - Nov. Issue, 1412 16th St. NW Washington, D.C. 20036 I-C-E RMC Urban America, I-C-E RMC	
Audio-Visual: #3345 All of the People All of the Time, BAVI #6247 Standing Room Only, BAVI	
Community: Local doctor or medical center	

e Materials	Continued and Additional Suggested Learning Experiences
ration, Nov. Issue, 6 I-C-E RMC MC	
e All of the ly, BAVI	
l center	

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT: 9. Man has the ability to manage, manipulate, and change his environment.	Discipline Area Subject Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Students will state ways man is polluting wilderness areas. Affective: Student will learn why wilderness areas are needed to exist in world of change.	I. Student-Centered in class activity A. Show a film or filmstrip on environmental change. B. Students take notes during showing. C. Write report on their thoughts as to learning from film lesson. 1. Report could be in factual form for panel discussion set-up. 2. An essay report for bulletin board display. D. Use reports by panel leaders in discussing the lesson and class participation.
Skills to be Learned Research for materials Note taking in shorthand Typing skill of composing Grammar Proofreading for result of project	

ity to manage,

nge his

Discipline Area Business Education

Subject Shorthand

Problem Orientation Destroying Natural Resources Grade 10-12

ES	SUGGESTED LEARNING EXPERIENCES	
11	I. Student-Centered in class activity A. Show a film or filmstrip on environmental change. B. Students take notes during showing. C. Write report on their thoughts as to learning from film lesson. 1. Report could be in factual form for panel discussion set-up. 2. An essay report for bulletin board display. D. Use reports by panel leaders in discussing the lesson and class participation.	II. Outside Resource and Community Activities A. Research articles on what is taking place in our environment. B. Bulletin board display developed from gathering materials of area.
l reas		
nd ing		
t		

Resource and Reference Materials	Continued and Additional Sugge
Publications: The Traffic Jam, I-C-E RMC	
Audio-Visual: Single, Kit 13, I-C-E RMC Ecology and Man, FS ST 11, I-C-E RMC	
Community: Planner of community on the development of new housing area and impact on number of cars coming into the main artery of traffic	

Materials	Continued and Additional Suggested Learning Experiences
RMC	
MC 11,	
the sing ber e main	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT

10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Busine

Subject Shorth

Problem Orientation Ec

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX
Cognitive: Students will be able to name specific ways in which economic robbery is occurring in each of the 8 areas named. Affective: Students will attempt to identify ways to combat this robbery or at least to hold it down.	I. Student-Centered in class activity A. Have students bring in an article concerning economic robbery in relation to: 1. Air 2. Wildlife 3. Water 4. Soil 5. Timber 6. Living space 7. Minerals 8. People B. Discuss the articles and then transcribe them into shorthand.
Skills to be Learned Shorthand outline Research Group interaction	

onomic gains may

environmental

Discipline Area Business Education

Subject Shorthand

Problem Orientation Economic Profits Grade 10-12

TIVES	SUGGESTED LEARNING EXPERIENCES	
will ific nic in will ways ory it	I. Student-Centered in class activity A. Have students bring in an article concerning economic robbery in relation to: 1. Air 2. Wildlife 3. Water 4. Soil 5. Timber 6. Living space 7. Minerals 8. People B. Discuss the articles and then transcribe them into shorthand.	II. Outside Resource and Community Activities A. Speakers concerning any one of the 8 areas. Examples: 1. DNR 2. Paper mill personnel 3. Coast Guard 4. Lumberman 5. Farmers 6. Doctors
d		

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: Newspapers, magazines or books concerning articles on environmental conditions Pollution, Property and Prices, I-C-E RMC 110 La Material Objects, 1970, I-C-E RMC VF Series of materials from Scientists Institute for Public Information, I-C-E RMC	
Audio-Visual: Films: Bulldozed America, #6429 BAVI The Gifts, I-C-E RMC Simulation game: Man in His Environment, SG 4 I-C-E RMC Kit: Crisis of the Environment, KT 6 I-C-E RMC	
Community: Speakers from DNR Coast Guard Paper mills	

rning	rials	Continued and Additional Suggested Learning Experiences
	oks iron- ces, 70, ublic	
	BAVI 4 KT 6	

ESEA Title III - 59-70-0135-2 Project I-C-3

CONCEPT

11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area: Business Ed

Subject: Shorthand

Problem Orientation: Waste

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIEN	
Cognitive: Students will be able to list positive steps that local businessmen are taking to combat internal pollution. Affective: Students will be able to see the need for constant checks on internal pollution. Skills to be Learned Interviewing Note taking Composition Typing Speaking	I. Student-Centered in class activity A. From their shorthand notes, students will compose and type up a short report, regarding their interview with a businessman. B. Students will present a brief resume of their interview to the rest of the class. C. Students will turn in resume, and the remaining students will exchange shorthand notes taken during the student's presentation and then transcribe the other students notes.	II. Outs Commu A. St vi ma he in hi co 1.

ts, duplicated

oduce significant

erations over

Discipline Area Business Education

Subject Shorthand

Problem Orientation Waste Grade 10-12

VES	SUGGESTED LEARNING EXPERIENCES	
ill ive g ill ed for	I. Student-Centered in class activity A. From their shorthand notes, students will compose and type up a short report, regarding their interview with a businessman. B. Students will present a brief resume of their interview to the rest of the class. C. Students will turn in resume, and the remaining students will exchange shorthand notes taken during the student's presentation and then transcribe the other students notes.	II. Outside Resource and Community Activities A. Students will interview a local businessman in regard to what he is doing to combat internal pollution in his own business concern. 1. Students take notes in shorthand.

Resource and Reference Materials	Continued and Additional Su
Publications: Urban America, I-C-E RMC 100 Ma Congressional Quarterly, I-C-E RMC	
Audio-Visual: Filmstrip: FS ST3 Urban Ecology: Six Microsystems, I-C-E RMC Kit: Kt 13 Urban Crisis, I-C-E RMC	
Community: Local business leader	

als	Continued and Additional Suggested Learning Experiences
y,	
c	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Busines

Subject Shortha

Problem Orientation Con Pol

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX
Cognitive: Students will compile a list of polluters in the local area. Affective: Students will appreciate the need for such a watch to improve living conditions.	I. Student-Centered in class activity A. Students will compile (in shorthand) a list of local polluters: 1. In the city 2. On the highway 3. In waterways 4. In wooded areas B. These lists can be compiled and organized. The letter/letters should be sent to government officials and businesses or industries. C. Note: Sample newspaper report form on reverse side.
Skills to be Learned Shorthand outline Typing Researching	

II.

hip must be

ardship and should

or violate the

f others.

Discipline Area Business Education

Subject Shorthand

Problem Orientation Control of Pollution Grade 10-12

ES	SUGGESTED LEARNING EXPERIENCES	
ill 1 ill or ve	I. Student-Centered in class activity A. Students will compile (in shorthand) a list of local polluters: 1. In the city 2. On the highway 3. In waterways 4. In wooded areas B. These lists can be compiled and organized. The letter/letters should be sent to government officials and businesses or industries. C. Note: Sample newspaper report form on reverse side.	II. Outside Resource and Community Activities A. Use library resources to gather information. B. Students consult local business leaders about controls put on business/industry in the area. 1. Another field of possible resource could be a DNR representative.

Resource and Reference Materials

Publications:

A Sand County Almanac, I-C-E RMC

Air and Water Pollution, I-C-E RMC

Audio-Visual:

Film:

Troubled Waters

U.S. Senate Public Works Committee
Rm. 4204, New Senate Office Bldg.
Washington, D.C. 20510

Community:

Local business leader

DNR representative

Continued and Additional S

Sample Newspaper Report Fo

POL

It's Your Fight

Do you know of pollut
spend your recreation
the highways, in wate
If you do, report it
Information you suppl
agencies charged with

Pollution Watch
Name & Address of
your local newspaper

Type of pollution:

Water_____ Air___
Other_____

Names, Address, Dates
Comments: _____

Additional informatio
Your Name_____
Address_____
City_____
Telephone_____
(Your report will be
desire.)

Materials	Continued and Additional Suggested Learning Experiences
I-C-E RMC , I-C-E RMC rks Committee Office Bldg. 0	Sample Newspaper Report Form

POLLUTION WATCH

It's Your Fight to a Better Environment

Do you know of pollution where you live, work or spend your recreational hours - in the city, on the highways, in waterways or in wooded areas? If you do, report it to your local newspaper. Information you supply will be relayed to the agencies charged with protecting our environment.

Pollution Watch
Name & Address of
your local newspaper

Type of pollution:

Water_____Air_____Litter_____
Other_____

Names, Address, Dates, Times, License No., Location, Comments: _____

_____

Additional information:
Your Name_____
Address_____
City_____ ZIP _____
Telephone_____
(Your report will be kept confidential if you desire.)

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form that all living things can use for life processes.

Discipline Area: Business Educ

Subject: Clerical & Se

Problem Orientation: Excessive of Energ

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIE	
Cognitive: Students will list ways to practice conservation of electricity in their use of electrical office equipment. Affective: The student becomes aware of the waste of power in the classroom and in the office. The student practices good economy habits when operating electrical equipment. Skills to be Learned Good habits in their use of classroom equipment. Note taking - Shorthand will be applied toward Secretarial-Office Practice, in Clerical Office Practice, notes will be taken in long hand. Report typing	I. Student-Centered in class activity A. Students discuss equipment in school and offices that use electricity. 1. Students discuss ways in which waste of electricity occurs: a. Forgetfulness b. Poor work habits c. Laziness B. School business manager or superintendent talks to students on cost of electricity for school, broken down into departments, if possible. C. A business machine representative (IBM for example) talks to students on power usage. Give suggestions for conserving power. D. An office manager from a local business tells the students about his office operations on power usage. E. Students type summary of talk.	II. Outsi Commun A. Loc B. Loc rep C. Sur to off D. Add cou ene in and rep lev fir

e sun, the basic	Discipline Area	Business Education
rgy, is converted	Subject	Clerical & Secretarial Practice
tosynthesis into	Problem Orientation	Excessive Consumption of Energy Grade 12
iving things can		
esses.		

IVES	SUGGESTED LEARNING EXPERIENCES	
will e tricity trical nt waste sroom s good L	I. Student-Centered in class activity A. Students discuss equipment in school and offices that use electricity. 1. Students discuss ways in which waste of electricity occurs: a. Forgetfulness b. Poor work habits c. Laziness B. School business manager or superintendent talks to students on cost of electricity for school, broken down into departments, if possible. C. A business machine representative (IBM for example) talks to students on power usage. Give suggestions for conserving power. D. An office manager from a local business tells the students about his office operations on power usage. E. Students type summary of talk.	II. Outside Resource and Community Activities A. Local businessman B. Local business machine representative C. Survey of manual usage to electric usage-office managers. D. Additional research could be on use of energy by individual in 24 hours (all day and night). Write report on individual level that student finds on research.
d use ment. nand ward cal otes ong		

Resource and Reference Materials	Continued and Additional Sugg
Publications: Science books in school library regarding stories on energy.	
Audio-Visual: Filmstrip: Biology - Ecology & Man Set I Energy Relationship McGraw Hill Film: Electricity & How it is Made #6074 - BAVI Relates to Light, Heat & Power	
Community: Energy production source & usage of your local area: Power Company Gas Company Oil Companies	

als	Continued and Additional Suggested Learning Experiences
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age	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT	2. All living systems interact among themselves and their environment forming an intricate unit called an ecosystem.	Discipline Area Business Edu Subject Secretarial Problem Orientation Check and Balance Sy

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIE	
Cognitive: The student will be able to flowchart an office using the data processing symbols. Affective: The student will have an appreciation of the dependency of one ecoelement on another. Skills to be Learned Flowcharting Researching Recording Conducting a meeting Labeling	I. Student-Centered in class activity A. In a simulated office situation in the classroom, have students make out a flowchart. 1. Show the relationship between stations. 2. Show the amount of dependency from one job to another. B. Play a game of nature by using various stations of the office as elements of nature. 1. Place signs to label. 2. Students do flowcharts to see relationship. 3. Office manager (student) has a simulated board meeting (all involved students) meet and discuss the relevancy of one element of nature to another and stress how our ecosystem cannot survive without all functioning properly.	II. Outsid Communi A. Visi to m B. Visi plac natu rela flow C. Have ecol spea what idea

:eract among	Discipline Area	Business Education	
ironment	Subject	Secretarial & Clerical Office	
: called	Problem Orientation	Check and Balance System	Grade 12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. In a simulated office situation in the classroom, have students make out a flowchart.
      1. Show the relationship between stations.
      2. Show the amount of dependency from one job to another.
   B. Play a game of nature by using various stations of the office as elements of nature.
      1. Place signs to label.
      2. Students do flowcharts to see relationship.
      3. Office manager (student) has a simulated board meeting (all involved students) meet and discuss the relevancy of one element of nature to another and stress how our ecosystem cannot survive without all functioning properly.

II. Outside Resource and Community Activities
   A. Visit business office to make flowchart.
   B. Visit natural resource place to get elements of nature and how it is related to the other flowchart.
   C. Have local school ecology club member speak to class on what this concept or idea means to the club.

Resource and Reference Materials	Continued and Additi
Publications: Since Silent Spring - 180 Gr I-C-E RMC Interaction and Systems - 110 Br I-C-E RMC Audio-Visual: Topics in Ecology; 5 Single Concept Lessons - KT Ecology Game - I-C-E RMC Community: Local business office School Ecology Club School Ecology Club advisor	

Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 3. Environmental factors are limiting on the number of organisms living within their influence, thus each environment has a carrying capacity.

Discipline Area Business E

Subject Clerical &

Problem Orientation Overpo

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	II.
Cognitive: Students prepare a list of problems resulting from overpopulation, what should be done, and steps taken thus far in problem of overpopulation. Affective: Student learns the effect of overpopulation in a given area and the effect of the problem in his life time. Skills to be Learned Research of facts Rough draft of report Prepare copy on typewriter for use Use original copy to produce other copies for a duplicating device.	I. Student-Centered in class activity A. Give source materials where students may obtain needed facts for research. 1. Discussion on note taking. 2. How to outline. 3. How to rough draft from outline. 4. How to make correct original reports on typewriter. B. Discussion by using selected class members for panel leaders. 1. Population growth. 2. Steps taken thus far on population growth. 3. Future steps needed to be done for control. C. After discussion, students exchange papers and make corrections found or OK it for printing. 1. Students in class could gather pictures on population of a rural, urban or city and show the areas as to concentration of (cont.)	A B C

ing Discipline Area Business Education

Subject Clerical & Secretarial Practice

Problem Orientation Overpopulation Grade 12

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SUGGESTED LEARNING EXPERIENCES

ent-Centered in class
ity
ve source materials
ere students may
tain needed facts
r research.
Discussion on note
taking.
How to outline.
How to rough draft
from outline.
How to make correct
original reports on
typewriter.
scussion by using
ected class members
panel leaders.
Population growth.
Steps taken thus far
on population growth.
Future steps needed
o be done for control.
er discussion, students
hange papers and make
rections found or OK
or printing.
Students in class could
ather pictures on
opulation of a rural,
rban or city and show
he areas as to concen-
ration of (cont.)

II. Outside Resource and Community Activities
A. Sources
1. County Social Services, Court House.
a. Number of caseloads.
2. Local Planners
a. Number of persons in a given area. More than area can support.
3. Medical Assoc.
4. Dept. of Health, Education and Welfare.
B. Better housing study in areas of poor conditions.
C. Housing for elderly as to bring together into one unit.

Resource and Reference Materials	Continued and Additional Sug
Publications: Education for Survival, US Dept. HEW, I-C-E (V.F.) Too Many People, Kimball Richard, 190 Ki I-C-E RMC Population (Card index-local library) America the Raped, Gene Marin, Discus books by Avon Audio-Visual: Film: 230 Family Planning, I-C-E RMC Walt Disney Ed. Mtl's Co. Cities In Crisis, What's Happening #6843 BAVI Community: Housing Authority Committee in county Zone planning committee	1. (cont.) person per square mil 2. Local school condition increases and space re

ed and Additional Suggested Learning Experiences

t.)

erson per square mile.

ocal school conditions as school population

ncreases and space remaining stationary.

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT: 4. An adequate supply of pure water is essential to life.

Discipline Area: Busine

Subject: Cleric

Problem Orientation: Wate

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX
Cognitive: The student is able to name source of local water supply. Student can list ways to conserve water. Affective: The student has become aware of excessive consumption of water. Student appreciates the value of pure water.	I. Student-Centered in class activity A. Students see film or filmstrip. B. Speaker talks to the students on sources of local water supply. 1. Importance to the community. 2. Future outlook of pure water for: a. Local area b. State c. Nation C. Students will transcribe notes taken during research and type a brief report, in the correct style. D. Students will write letters to local or area businesses asking them to explain what they are doing about water pollution abatement. 1. Students exchange papers and proofread. 2. Students retype if needed. E. Letters are discussed as to content and are revised if necessary. F. Better letters can be duplicated. Class will practice.
Skills to be Learned Improvement of vocabulary Report writing Increase shorthand speed Increase typing speed Summarize & draw conclusions Proofreading Duplication process	

II. C
Co
A.
B.
C.

(cont.)

iscipline Area Business Education

ubject Clerical & Secretarial Office Practice

roblem Orientation Water Pollution Grade 12

SUGGESTED LEARNING EXPERIENCES	
tered in class see film or . alks to the on sources water supply. ance to the ity. outlook of pure for: al area te ion will transcribe en during and type a brief n the correct will write letters or area businesses em to explain what doing about water abatement. ts exchange papers oofread. ts retype if needed. re discussed as to nd are revised if . tters can be dupli- lass will practice.	II. Outside Resource and Community Activities A. Member of local water commission will speak to the class on present trend and outlook for supply of pure water. B. Use of library to conduct research on water supply. Take notes in shorthand. 1. Causes of pollution. 2. Prevention of pollution. 3. Correction process. C. Field trip to water treatment plant. 1. Students to take notes in shorthand about field trip.

(cont.)

Resource and Reference Materials	Continued and Additio
Publications: Post Cresent, February 27, 1972. A Primer on Waste Water Treatment, VF U.S. Dept. of Interior, 1969. Audio-Visual: Film: Water Pollution, #7875 BAVI Filmstrip: Biology - The Ecology Crisis - Pollution, QED Products Community: Local Businessmen Local Water Commission	I. (cont.) typing letters an

Materials	Continued and Additional Suggested Learning Experiences
27, 1972. Treatment, rior, 1969.	I. (cont.) typing letters and take timings on typewriter.
Crisis - ts	

CONCEPT	5. An adequate supply of clean air is essential for life.	Discipline Area Business Subject Secretar Problem Orientation Air Po

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX
Cognitive: The student will type up sources of air pollution in tabulation form: Company - Products - Source of Pollution Affective: Student will become more aware of causes of air pollution. Student will become aware of the control methods which could be used. Skills to be Learned Typing of numbers with increased speed and accuracy Tabulation Researching	I. Student-Centered in class activity A. Show filmstrip on air pollution. B. Students discuss causes of air pollution: 1. Possible starting questions: a. Who are the local air polluters? b. What products do they manufacture? c. What controls could be placed on industry? (Specific companies) C. Students practice, type and take typing timings on material containing statistics on air pollution.

Discipline Area Business Education

Subject Secretarial & Clerical Office Practice

Problem Orientation Air Pollution Grade 12

SUGGESTED LEARNING EXPERIENCES	
nt-Centered in class ty w filmstrip on air lution. dents discuss causes air pollution: Possible starting questions: a. Who are the local air polluters? b. What products do they manufacture? c. What controls could be placed on industry? (Specific companies) dents practice, type l take typing timings on erial containing tistics on air pollution.	II. Outside Resource and Community Activities A. Newspaper articles in library or at home of student--concerning local air polluters. B. Research material for facts--numbers, date, etc. concerning air pollution or polluters. 1. Use library 2. Newspapers 3. City records - City Hall

Resource and Reference Materials	Continued and Additional
Publications: With Every Breath You Take, Lewis, Howard, Crown Publishers, Inc. New York. Air and Water Pollution, I-C-E RMC Audio-Visual: FS Stl Environmental Pollution... Our World in Crisis - I-C-E RMC Film: Poisoned Air, #6576-6577 BAVI Community: Local library	

ials	Continued and Additional Suggested Learning Experiences
Lewis, nc. -E RMC on... I-C-E	

CONCEPT

6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area: Business
Subject: Secretar
Problem Orientation: Rich Nati

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	II.
Cognitive: Students make a list of natural resources that make a country prosperous and how they are used to create wealth. Affective: Students will appreciate importance of natural resource to a community.	I. Student-Centered in class activity A. Resource research 1. Students research types of resources in U.S. and organize categories. a. Underground b. Surface 2. Prepare a list of resources found in local area. 3. Prepare a list of firms in area using local resources. 4. Students prepare or type analysis report on how local resources are utilized in community or shipped elsewhere.	C A B C D E F G
Skills to be Learned Taking notes in shorthand and transcription		

t equally Discipline Area Business Education

or over Subject Secretarial & Clerical Practice

Problem Orientation Rich & Poor Nations Grade 12

uality of

SUGGESTED LEARNING EXPERIENCES	
. Student-Centered in class activity A. Resource research 1. Students research types of resources in U.S. and organize categories. a. Underground b. Surface 2. Prepare a list of resources found in local area. 3. Prepare a list of firms in area using local resources. 4. Students prepare or type analysis report on how local resources are utilized in community or shipped elsewhere.	II. Outside Resource and Community Activities A. Use library references for finding list of resources. 1. Area distribution in U.S. B. Community leaders will speak to class and tell how their firms use raw materials.(Natural resources) C. Students make a survey of the importance of resources for jobs in the community. D. Field trip in an area using natural resources. 1. Student observes type of materials being used. 2. Waste from resource materials and disposition. E. Student returns to classroom and makes out an outline of facts observed on trip. F. Prepare rough draft. G. Type resource material into a final report for publication.

Resource and Reference Materials	Continued ar
Publications: Man's Control of the Environment, Congressional quarterly, 1970, DNR, Madison, Wi. The Delight Destroyers, Geo. Laycoch, I-C-E RMC 150 La	
Audio-Visual: Kt 5 Eye Gate House, Inc. Aggradation-Degradation I-C-E RMC Conservation of Natural Resources, #0467, BAVI	
Community: Local leaders concerned about local natural resources Government: State Dept of Resources Federal Dept of Interior Paper Mill personnel	

Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Busines

Subject Clerica

Problem Orientation Popul

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: The student can list ways that changes in population trends will effect him. Affective: The student realizes that population trends will effect him positively or negatively in relation to finding employment. Skills to be Learned Write an application letter Typing report form Shorthand skills Tabulation	I. Student-Centered in class activity A. Students watch filmstrip 1 or 2 of Kit 14. Secretarial students take notes in shorthand and the clerical students use longhand. 1. Students transcribe notes in report form, including tabulation in report. 2. Discussion: a. Reason for increase or decrease in population growth. b. Effect of population change on student. c. Effect of changes in land use on people. B. Students discuss employment situation in relation to population. 1. Areas of state where employment is in crisis. 2. Fields in which employment will grow. C. Students will write a letter of application for a specific job in the field of ecology.

II

Discipline Area Business Education

s, Subject Clerical & Secretarial Office Practice

Problem Orientation Population Growth Grade 12

e on
population density.

SUGGESTED LEARNING EXPERIENCES

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udents watch filmstrip
or 2 of Kit 14.
cretarial students take
tes in shorthand and
e clerical students use
nghand.
Students transcribe
notes in report form,
including tabulation
in report.
Discussion:
a. Reason for increase
or decrease in
population growth.
b. Effect of population
change on student.
c. Effect of changes in
land use on people.
udents discuss employment
tuation in relation to
pulation.
Areas of state where
employment is in crisis.
Fields in which employ-
ment will grow.
udents will write a letter
application for a specific
b in the field of ecology.

II. Outside Resource and Community Activities
A. Speaker from area technical school could speak on:
1. Employment trends.
2. Changes in types of employment.
3. Predictions for future employment.
B. Speaker from DNR on expansion of the community.
C. Field trip to City Planning Commission Office to observe the methods used to determine location or zoning laws and the reasons why.

Resource and Reference Materials	Continued and Additional Su
Publications: Local newspaper articles on population growth.	
Audio-Visual: Kit 14 - The Ecological Crisis, I-C-E RMC Film: Man Uses and Changes the Land, #6389 BAVI Population Problem: U.S.A. Seeds of Change, #6937 BAVI	
Community: Local technical school DNR City Planning Commission	

ntinued and Additional Suggested Learning Experiences

CONCEPT	8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	Discipline Area Busi Subject Secr Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Students can list results of pollution abatement upon company involved, its employees and its economy. Affective: The students realize the difficulties involved in cleaning up rivers and air. Skills to be learned Use of calculator to add, subtract, divide and multiply.	I. Student-Centered in class activity A. Students are assigned to read articles on the cost of fighting pollution. Discuss: 1. Cost of pollution abatement equipment. 2. Results on profits. 3. Results upon economy of some mills closing down. B. Using adding machines and calculators, students do problems in calculating: 1. Total cost of equipment. 2. Percent of increase or decrease in consumption of product. 3. Percent of increase or decrease of profit. C. Students take dictation on material about cost of fighting pollution. D. Students transcribe their notes on typewriter in correct form.

nd Discipline Area Business Education

tus Subject Secretarial & Clerical Office Practice

Problem Orientation Costs of Fighting Pollution Grade 12

SUGGESTED LEARNING EXPERIENCES

udent-Centered in class ivity

Students are assigned to read articles on the cost of fighting pollution.

Discuss:

1. Cost of pollution abatement equipment.
2. Results on profits.
3. Results upon economy of some mills closing down.

Using adding machines and calculators, students do problems in calculating:

1. Total cost of equipment.
2. Percent of increase or decrease in consumption of product.
3. Percent of increase or decrease of profit.

Students take dictation on material about cost of fighting pollution.

Students transcribe their notes on typewriter in correct form.

II. Outside Resource and Community Activities

A. Representative or speaker from local firm involved in pollution abatement speak to class on costs involved.

Resource and Reference Materials	Continued and Additiona
Publications: Post Crescent, February 27, 1972. Page 1 VF Clean Air for Our Community, 1969, I-C-E RMC Man in the Web of Life, I-C-E RMC VF So You're Going to the Beach! I-C-E RMC Audio-Visual: Film: Pollution is a Matter of Choice, #7437-7438 BAVI Community: Local paper mill	

ntinued and Additional Suggested Learning Experiences

CONCEPT		
C C N C E P T	9. Man has the ability to manage, manipulate, and change his environment.	Discipline Are Subject Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED
Cognitive: The student lists ways in which our environment (trees) can be protected. The student can compose a letter. Affective: The student becomes aware of recycling efforts and realizes he is helping the environment by buying products made of recycled paper. Skills to be Learned Composing letters Proper filing procedure Dictating skills Improvement of shorthand vocabulary Transcription skills	I. Student-Centered in class activity A. Students are assigned articles or sources to learn: 1. Which companies use recycled paper in their products. 2. The products themselve notebooks, phone books etc. B. Students prepare a list o companies. C. Composition letter is discussed. D. Letters are composed, commending companies on their use of recycled paper. E. Students dictate their composed letters to each other. They are then transcribed and discussed as to composition.

anage, Discipline Area Business Education

Subject Secretarial & Clerical Office Practice

Problem Orientation Destroying Our Natural Resources Grade 12

SUGGESTED LEARNING ACTIVITIES

I. Student-Centered in class activity

A. Students are assigned articles or sources to learn:
   1. Which companies use recycled paper in their products.
   2. The products themselves - notebooks, phone books, etc.

B. Students prepare a list of companies.

C. Composition letter is discussed.

D. Letters are composed, commending companies on their use of recycled paper.

E. Students dictate their composed letters to each other. They are then transcribed and discussed as to composition.

II. Outside Resource and Community Activities

A. Field trip to recycling plant.

B. Students bring in as many samples of recycled paper as he can find citing:
   1. Where is the paper waste obtained used in recycling?
   2. What difficulties are found in making use of waste paper.

Resource and Reference Materials	Continued and Addition
Publications: Post Crescent, February 27, 1972. Trees for Tomorrow, Eagle River, Wi. Bulletins of various kinds	
Audio-Visual: Films: Recycling, #3970 BAVI Man's Impact on His Environment, #2996 BAVI	
Community: Action of local group and government on recycling of paper	

tinued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: Students will list the "free goods' of the environment. Students will write a paper evaluating the local use of these "free goods" and their effects. Affective: The students will form judgments as to their responsibilities concerning these "free goods".	I. Student-Centered in class activity A. Students will take notes while viewing filmstrip (FS st 3). Then type notes in an outline form. B. Students are given folders for keeping gathered data in developing this concept C. Students take notes on speeches or research work. Type up notes. D. Students organize notes from folder: 1. Compose/prepare a manuscript developing the idea "abuse of free goods" as gathered from filmstrip, researc and speeches. 2. Manuscript will be in correct order including a. Title paper b. Table of contents c. Bibliography
Skills to be Learned Researching Typing Note taking (shorthand) Evaluating Typing an outline form Preparing a manuscript Composition	

Discipline Area Business Education

Subject Secretarial & Clerical Office

Problem Orientation Quick Profits vs Long-term Envir. Losses Practice Grade 12

SUGGESTED LEARNING EXPERIENCES

nt-Centered in class
ty
dents will take notes
le viewing filmstrip
st 3). Then type notes
an outline form.
dents are given folders
keeping gathered data
developing this concept.
dents take notes on
eches or research work.
e up notes.
dents organize notes
m folder:
Compose/prepare a manuscript developing the idea "abuse of free goods" as gathered from filmstrip, research and speeches.
Manuscript will be in correct order including:
a. Title paper
b. Table of contents
c. Bibliography

II. Outside Resource and Community Activities

A. Students view community industrial areas to observe their uses of "free goods".

B. Use of library to research current publications concerning environmental losses caused by industry.

C. Speaker from local manufacturing company:
1. Paper mill
2. Mining company
3. Construction company

Resource and Reference Materials	Continued and Additional
Publications: Pollution Property & Prices, I-C-E RMC VF Environmental Science Center, I-C-E RMC America the Raped, I-C-E RMC	
Audio-Visual: FS St 3 Urban Ecology: Six Microsystems, I-C-E RMC KT 5 Aggradation-Degradation, I-C-E RMC	
Community: Speaker from local industry DNR	

S	s	Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT

11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Busi

Subject Secr

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Students list ways to lower consumption of supplies in office and school. Affective: Student becomes economical minded in personal usage of supplies and the supplies of employers. Skills to be Learned Prepare budget for purchase of supplies Prepare charge out system to know who uses supplies Inventory control by periodical inventory	I. Student-Centered in class activity A. Discuss ways of controlling the inventory of supplies. B. Explain how supplies can be conserved. C. Obtain forms to record inventory. D. Record receipts on forms. E. Have individuals sign for supplies used and make a record as to usage by individual. F. Make an inventory check at end of period. G. Have class write up: 1. A program of inventory control as a final report. 2. A final report on inventory control for personal or business affairs.

l ___ Discipline Area Business Education

ant Subject Secretarial & Clerical Practice

time. Problem Orientation Waste of Supplies Grade 12

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SUGGESTED LEARNING EXPERIENCES	
Student-Centered in class ctivity Discuss ways of controlling the inventory of supplies. Explain how supplies can be conserved. Obtain forms to record inventory. Record receipts on forms. Have individuals sign for supplies used and make a record as to usage by individual. Make an inventory check at end of period. Have class write up: 1. A program of inventory control as a final report. 2. A final report on inventory control for personal or business affairs.	II. Outside Resource and Community Activities A. A local planner speak to class as to land development. B. Area Planning Committee on land use in local area. C. Get inventory of land uses and projection of land use. D. Visit a local plant for materials on inventory procedure. E. Speaker from business on inventory control.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: The Only Earth We Have, Pringle, Macmillan Co., N.Y. Urban America, Branson, Scott-Foresman & Co. Investigating Man's World, Scott-Foresman & Co.	
Audio-Visual: Films: City and its Region, #5893 BAVI Stuff We Throw Away, #7923 BAVI	
Community: Leaders of material handling people to talk to class on inventory control against waste.	

tinued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT		
12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others	Discipline Area	Busi
	Subject	Cle
	Problem Orientation	

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Students will predict the consequences of present trends in the world of industry to use the environment for their own use, without regard for others. They will give examples by listing industries in the state where abuse occurs. Affective: Students will be able to weigh the alternatives available to industry concerning their disregard for property, "free goods", and the rights of others.	I. Student-Centered in class activity A. As an introduction, the students ill view the films: 1. The Stream 2. Junk Dump B. Students research the industry of the state; preparing a 5" x 7" index card for each industry. 1. The cards will be arranged according to the leading violator listed first, etc. 2. The student will prepare a chart showing the specific areas of pollution where manufacturers have a responsibility. (Chart on back) C. The students will prepare a report to explain chart and predict consequences if present trend continues. 1. This will be typed in correct report form with title page, etc. D. Student will send the final conclusions to area newspaper for possible (cont.)
Skills to be Learned Typing of reports Organization of data Researching Report preparing Chart preparation	

must be

ship and should

violate the

thers

Discipline Area Business Education

Subject Clerical & Secretarial Office Practice

Problem Orientation Encroach of Ownership on the Environment Grade 12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. As an introduction, the students ill view the films:
   1. The Stream
   2. Junk Dump

B. Students research the industry of the state; preparing a 5" x 7" index card for each industry.
   1. The cards will be arranged according to the leading violator listed first, etc.
   2. The student will prepare a chart showing the specific areas of pollution where manufacturers have a responsibility. (Chart on back)

C. The students will prepare a report to explain chart and predict consequences if present trend continues.
   1. This will be typed in correct report form with title page, etc.

D. Student will send the final conclusions to area newspaper for possible (cont.)

II. Outside Resource and Community Activities

A. Use library to gather data concerning the report and chart on pollution causes in the state.

B. Students contact local and regional manufacturers to gather information about their efforts to control their present pollution level.

C. A group of students (4-5) to contact DNR representative to gather data concerning the state's new anti-pollution laws. (If a Pollution Abatement Commission available, contact them.)

Resource and Reference Materials

Publications:

America the Raped, I-C-E RMC

150 La The Diligent Destroyers, I-C-E RMC

VF Environmental Science Center, I-C-E RMC

VF Scientists Inst. for Public Information, I-C-E RMC

Pollution Property & Places, I-C-E RMC

Audio-Visual:

Films:

The Stream, I-C-E RMC

Junk Dump, I-C-E RMC

Community:

Local manufacturer--type will vary with different areas

DNR representatives

Continued and Additional Sugg

I. (cont.)

publication. Also send to
State Assembly representat
1. Chart will be included.

TYPES OF P

Name of Company	Human	Water	

(Place a (✓) check in squa
of pollution occurs. Und
of Company", list the com
was conducted.)

Continued and Additional Suggested Learning Experiences

I. (cont.)
publication. Also send to Congressman, Senator or State Assembly representative.
1. Chart will be included.

TYPES OF POLLUTION

Name of Company	Human	Water	Air	Noise	Land

(Place a (✓) check in square where a specific type of pollution occurs. Under column heading "Name of Company", list the companies where research was conducted.)

CONCEPT

1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area Bu

Subject Bo

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Through the simulation of accounting procedures for a green-house, students will list 3 ways the sun helps to provide the profit for the business. Affective: Students will observe that any business activity requires energy from the sun.	I. Student-Centered in class activity A. Design a chart of accounts for a greenhouse and nursery. 1. Write, visit or phone a local greenhouse and nursery. Find out what the titles of the accounts are that they use in their accounting process. B. From pre-determined accoun balance, complete: 1. Trial balance 2. Income statement 3. Balance sheet C. Research the profits of the business and the part the sun's energy played in the profit. D. Contact other businessmen: 1. Study other businesses i the area to learn how they use energy. 2. Trace their energy sourc back to the sun's energ E. Impress upon students that all business as well as li needs energy for its existence.
Skills to be Learned Analyze the environmental needs of all businesses Design charts and graphs Decision making	

sun, the basic
y, is converted
synthesis into a
ngs can use for

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Energy Source Grade 10-12

ES	SUGGESTED LEARNING EXPERIENCES	
ng ist o 11 ess gy	I. Student-Centered in class activity A. Design a chart of accounts for a greenhouse and nursery. 1. Write, visit or phone a local greenhouse and nursery. Find out what the titles of the accounts are that they use in their accounting process. B. From pre-determined account balance, complete: 1. Trial balance 2. Income statement 3. Balance sheet C. Research the profits of the business and the part the sun's energy played in the profit. D. Contact other businessmen: 1. Study other businesses in the area to learn how they use energy. 2. Trace their energy source back to the sun's energy. E. Impress upon students that all business as well as life, needs energy for its existence.	II. Outside Resource and Community Activities A. Field trip to local greenhouse/nursery. Observe the use of sun energy in production. B. Speaker from other industry. Discuss the type of energy used in his business and its effect on our total energy resources.
tal es hs		

Resource and Reference Materials	Continued and Additional
Publications: VF 1969, Clean Air For Your Community, I-C-E RMC Take Three Giant Steps to Clean Air, I-C-E RMC The Limits to Growth, part II I-C-E RMC Wallstreet Journal - various articles concerning environment	
Audio-Visual: Tape recorder Camera FS St2 Eye Gate House, Inc. 1970, Ecological Imbalance: Six Systems Dispoiled - 6 filmstrips I-C-E RMC	
Community: Businessmen from local area DNR Industrialists	

ls	Continued and Additional Suggested Learning Experiences
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ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT	2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.	Discipline Area Bu Subject Bo Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: The students will establish an analogy between the assets, liabilities, and the proprietorship of our economic system and its parallels to an ecosystem. Affective: Students curiosity aroused as to the parts of equation correlation, assets, liabilities and proprietorship to the way it is used in an ecosystem.	I. Student-Centered in class activity A. At the end of the 4th week, the students of bookkeeping have a good understanding of the equation - Assets equals liabilities plus proprietorship. B. Review fundamentals of bookkeeping and the uses of this thinking on environmental concepts. Questions: 1. Natural Resources minus Industrial & Human Depletion equals environmental status. 2. Our environment equals Industrial & Personal Depletion plus Natural Resources. C. Students will write comments concerning before mentioned equation as a home assignmen At the next meeting: 1. Students orally voice the opinion from notes, regarding the changing of this equation to meet new environmental (cont.)
Skills to be Learned Problem solving Decision making Planning work Conclude the above skill into a final report	

t among Discipline Area Business Education

t, Subject Bookkeeping

d Problem Orientation Basic Bookkeeping Equation Grade 10-12

SUGGESTED LEARNING EXPERIENCES

udent-Centered in class ivity

At the end of the 4th week, the students of bookkeeping have a good understanding of the equation - Assets equals liabilities plus proprietorship.

Review fundamentals of bookkeeping and the uses of this thinking on environmental concepts.

Questions:

1. Natural Resources minus Industrial & Human Depletion equals environmental status.
2. Our environment equals Industrial & Personal Depletion plus Natural Resources.

Students will write comments concerning before mentioned equation as a home assignment.

At the next meeting:

1. Students orally voice their opinion from notes, regarding the changing of this equation to meet new environmental (cont.)

II. Outside Resource and Community Activities

A. Business reports as to usage of resources and result on elements of the equation.

B. Visit local business and see how resources are used for the means of impact on our environment and the profit decision arrived.

Resource and Reference Materials	Continued and Additional Sugges
Publications: Any bookkeeping or accounting textbook Business publications as to results of operations. Audio-Visual: Film: Seeds of Destruction, #3327 BAVI Transparency use Community: Speaker from a business using natural resources	I. (cont.) changes. (eg. Slow down use a. Tape record oral discussi b. Play back remarks and sto is needed.

	Continued and Additional Suggested Learning Experience
	I. (cont.) changes. (eg. Slow down use of resources.) a. Tape record oral discussion. b. Play back remarks and stop tape when a remark is needed.

CONCEPT		
3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.	Discipline Area	Busin
	Subject	Bookk Ca
	Problem Orientation	Ca

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Students explain, orally, the value of natural resources to business success. They must be specific and use examples. Affective: Students analyze relationship between assets and liabilities in businesses that face financial difficulty because of limited natural resources.	I. Student-Centered in class activity A. Start with concept: A business losing their natural resources will soon go bankrupt or face financial difficulty. Solutions: 1. Could analyze balance sheet. Students can see how assets (land, buildings, machinery) take care of the liabilities and expenses. 2. Alternate route: Should a business borrow more money and go deeper in debt to solve problems or convert machinery to use a different resource? 3. Hire research firm.
Skills to be Learned Problem solving Brainstorming Letter writing Discussion Analyze balance sheet	

are limiting

ms living

hus, each

g capacity.

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Carrying Capacity Grade 10-12

SUGGESTED LEARNING EXPERIENCES

	I. Student-Centered in class activity	II. Outside Resource and Community Activities
, s. e and at	A. Start with concept: A business losing their natural resources will soon go bankrupt or face financial difficulty. Solutions: 1. Could analyze balance sheet. Students can see how assets (land, buildings, machinery) take care of the liabilities and expenses. 2. Alternate route: Should a business borrow more money and go deeper in debt to solve problems or convert machinery to use a different resource? 3. Hire research firm.	A. Have students write letters to a small business administration asking about loans to financially troubled small businesses. B. Field trip to local industry that uses one or more local natural resources. Use to show both business principles and environmental principles.

Resource and Reference Materials	Continued and Additional Sugges
Publications: 100 Ma Congressional Quarterly, 1970, Man's Control of the Environment, I-C-E RMC The Limits to Growth, Donella H. Meadows, Universe Books, $2.75. Audio-Visual: Filmstrip: Kt 5 Eye Gate House, Inc. 1970, Aggradation - Degradation, Set of 10, I-C-E RMC Community: Speaker - Local bank to discuss how to analyze a business for a loan	

Continued and Additional Suggested Learning Experiences

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CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area

Subject

Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Each student will describe orally the effect of added expenses on the financial statements and potential sources of revenue to offset the added expenses. Affective: Appreciation of free use of limited resources and awareness of their great value.	I. Student-Centered in class activity A. Question and answer period 1. Is water supply limited 2. Should the use of limited resource be fre or should there be a charge for use? B. Students assigned to interview industry or businessman - water expens for their operation. 1. Added expense to pay fo water use? 2. Sewer expense on water use? C. Teacher and students discu User's Fee vs "Free Goods" concept. 1. Pollution abatement cos are part of operating/ production costs? 2. Does a business have th right to use "free goo at the expense of the community?
Skills to be Learned Interviews Outside Research Income statement analysis Reports to class Letter writing	

f pure

life.

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Utilities & Expenses of Various Kinds

Grade 10-12

SUGGESTED LEARNING EXPERIENCES	
I. Student-Centered in class activity A. Question and answer period. 1. Is water supply limited? 2. Should the use of limited resource be free or should there be a charge for use? B. Students assigned to interview industry or businessman - water expense for their operation. 1. Added expense to pay for water use? 2. Sewer expense on water use? C. Teacher and students discuss User's Fee vs "Free Goods" concept. 1. Pollution abatement costs are part of operating/ production costs? 2. Does a business have the right to use "free goods" at the expense of the community?	II. Outside Resource and Community Activities A. Government representative to explain charge for sewer tax levied against water consumption. B. Reaction of business and manufacturing firms as to sewer tax charge.

Resource and Reference Materials	Continued and Additional
Publications: Conserving Our Water and Cleaning the Air, American Petroleum Institute, 1968. VF Dept. of the Interior, 1970, Clean Water? It's Up To You, Federal Water Quality Admin. VF 1970, Wanted for Murder, Water pollution poster Federal Water Pollution Control Administration All available at I-C-E RMC Audio-Visual: The Gifts, Film 230 I-C-E RMC Crisis of the Environment, Kt 6 Set of 5 filmstrips discussing pollution of air & water, I-C-E RMC	
Community:	

als	Continued and Additional Suggested Learning Experiences
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ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Area Busin

Subject Bookk H

Problem Orientation fo

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Student identifies the costs involved in installing air quality control for local, regional, and state areas. eg. Fox River Affective: Students' curiosity is aroused as they observe the cost to build air control devices.	I. Student-Centered in class activity A. Teacher and students discuss guidelines appropriate to learning the bookkeeping area, concerning air quality control. B. Prepare letters to various businesses on anti-pollution that they use (time, reason, and cost) 1. Obtain information. Students will role play. a. Act as a bookkeeper of a corporation and figure out how the company would absorb these added costs. 2. Role playing players: a. Speak in 1st person. b. Use facts gathered from research. c. Believe you are the person/position. 3. Audience - other students a. Come prepared with at least 2 written (cont.
Skills to be Learned Letter writing Cost analysis Interview methods	

y of clean air is	Discipline Area	Business Education
st organisms	Subject	Bookkeeping
rough respiration,	Problem Orientation	Hidden Costs for Pure Air Grade 10-12
y in their food.		

ES	SUGGESTED LEARNING EXPERIENCES	
tifies	I. Student-Centered in class activity A. Teacher and students discuss guidelines appropriate to learning the bookkeeping area, concerning air quality control. B. Prepare letters to various businesses on anti-pollution that they use (time, reason, and cost) 1. Obtain information. Students will role play. a. Act as a bookkeeper of a corporation and figure out how the company would absorb these added costs. 2. Role playing players: a. Speak in 1st person. b. Use facts gathered from research. c. Believe you are the person/position. 3. Audience - other students a. Come prepared with at least 2 written (cont.)	II. Outside Resource and Community Activities A. Field trip to local industries to observe methods uses to control air quality. 1. Students question industrial personnel concerning the cost of air quality controls. a. Wis. Public Service b. Air Pollution inspector of city gov't c. DNR Air Pollution specialist d. CESA field specialist
onal, x		
o es.		

Resource and Reference Materials	Continued and Additional Sugge
Publications: Local industry's annual report Local newspaper Wall Street Journal New York Times articles concerned with pollution laws EPA - DNR air quality standards	I. (cont.) questions for role pl 2. Prepare to challenge VARIATIONS: Role - Board of Director or Business Leaders vs C. Use overhead to show, wi pollution costs can be p
Audio-Visual: Overhead Smog, stimulation game I-C-E RMC KT 9 ...America is in Trouble, I-C-E RMC	
Community: Rep. of local industry DNR air pollution specialist City air pollution inspector	

Continued and Additional Suggested Learning Experiences

I. (cont.)

questions for role players.

2. Prepare to challenge the role players.

VARIATIONS:

Role - Board of Directors and Accounting Staff or Business Leaders vs Environmentalists

C. Use overhead to show, with a flowchart, how anti-pollution costs can be passed on to the consumer.

CONCEPT			
C O N C E P T	6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.	Discipline Area	Bu
		Subject	Bo P
		Problem Orientation	I

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Student will relate orally the percentage differences between production costs in various areas of the country. Affective: The student will appreciate the relationship between plant location and location of natural resources and costs.	I. Student-Centered in class activity A. Compare and contrast in oral reports, the revenue, costs and expenses of plants or factories producing similar products in different locations. 1. Get annual reports for corporations in area of interest. 2. Note the following for comparison - purchases, freight cost, labor cost and overhead cost. B. Write a final report as to why various companies are located in the present community of operations. 1. Report could cover a number of the following questions: a. What social costs are payable in various taxes? b. What does pollution cost a company? c. What environmental costs result (cont.)
Skills to be Learned Letter writing Interviewing Analysis of annual reports Preparing written reports	

qually

over

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e.

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Profit Analysis & Plant Location Grade 10-12

SUGGESTED LEARNING EXPERIENCES

. Student-Centered in class activity

A. Compare and contrast in oral reports, the revenue, costs and expenses of plants or factories producing similar products in different locations.
   1. Get annual reports for corporations in area of interest.
   2. Note the following for comparison - purchases, freight cost, labor cost and overhead cost.

B. Write a final report as to why various companies are located in the present community of operations.
   1. Report could cover a number of the following questions:
      a. What social costs are payable in various taxes?
      b. What does pollution cost a company?
      c. What environmental costs result (cont.)

II. Outside Resource and Community Activities

A. Gather corporation reports from corporations, brokerage houses or government units.

B. Interview local business heads of manufacturing firms.
   1. Sales manager
   2. Marketing manager
   3. Production or research personnel

Resource and Reference Materials	Continued and Additional Sugge
Publications: American Petroleum Institution: Bulletin board displays on natural resource locations in the United States. Audio-Visual: Films from American Petroleum Institution Community: Resource leaders of area to explain why their firm is located in given area and their source of raw material	I. (cont.) in picking sites in urba are "economically effici d. Will present industry of for many years or more t materials (resources)? e. Will the concentration/g change the pleasant envi urban areas?

nued and Additional Suggested Learning Experiences

cont.)

in picking sites in urban areas because these are "economically efficient"?

. Will present industry of community be retained for many years or more to a new source of raw materials (resources)?

. Will the concentration/growth of new industry change the pleasant environment of smaller urban areas?

CONCEPT	7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.	Discipline Area B Subject B Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Students will write up an investigative report and budget on establishing a leisure type business. Affective: Students will become aware that development of recreational/ leisure time activities will have an environmental impact which must be considered and may even be regulated now and in the future.	I. Student-Centered in class activity A. Students split up into small groups representing leisure types of business in barren areas of the country. 1. Problem areas: a. Income producing activity b. Cost of land c. Expenses of development including site preparation to meet codes d. Current operating expenses e. Amount to charge customer for activity f. Obtaining financing g. Preparing budget B. Have groups report their findings orally to the group and in writing to their instructor.
Skills to be Learned Problem solving Group research Investigation Writing a report Oral reporting Civic responsibility	

ting ___ Discipline Area Business Education

nditions, Subject Bookkeeping

eased Problem Orientation Business in Leisure time barren areas Grade 10-12

nfluence

centers of population density.

SUGGESTED LEARNING EXPERIENCES

. Student-Centered in class activity

A. Students split up into small groups representing leisure types of business in barren areas of the country.

1. Problem areas:
   a. Income producing activity
   b. Cost of land
   c. Expenses of development including site preparation to meet codes
   d. Current operating expenses
   e. Amount to charge customer for activity
   f. Obtaining financing
   g. Preparing budget

B. Have groups report their findings orally to the group and in writing to their instructor.

II. Outside Resource and Community Activities

A. Go to library or give an assignment to research leisure type business and land development ventures.

B. Have each group write to a Chamber of Commerce or a state government to find out costs and offers of various communities.

C. Review code restrictions for development.

D. Preparation of environmental impact statement.

E. Review pending legislation on land use policy and zoning and its rationals.

Resource and Reference Materials	Continued and Additional Su
Publications: Newspapers - Wall Street Journal A Place to Live, VF 100A I-C-E RMC Too Many People? 190Ki I-C-E RMC Wisconsin, VF I-C-E RMC	
Audio-Visual: One Day at Teton Marsh, 48 min., color, 16mm film I-C-E RMC	
Community: Chamber of Commerce DNR Zoning-planning official	

s	Continued and Additional Suggested Learning Experiences
l RMC MC	

CONCEPT	8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	Discipline Are Subject Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED L
Cognitive: Students will write a budget showing costs and income of a waste collection business. Affective: The students will create a mock waste collection business and possibly persist to run an actual mini concern.	I. Student-Centered in class activity A. Have students set up a waste collection busines 1. Divide class into fiv areas of business. a. Paper b. Glass c. Aluminum d. Metal e. Other 2. Groups should: a. Find out how much income they could receive per ton in each area. b. Find out how they could collect, sto and then sell to m a profit. c. Prepare a budget f their respective area.
Skills to be Learned Problem solving Group research Interviewing Investigation Planning Communication skills	

and ___ Discipline Area Business Education

tus ___ Subject Bookkeeping

___ Problem Orientation Profit from Waste Grade 11-12

___

SUGGESTED LEARNING EXPERIENCES

udent-Centered in class
tivity
Have students set up a waste collection business.
1. Divide class into five areas of business.
   a. Paper
   b. Glass
   c. Aluminum
   d. Metal
   e. Other
2. Groups should:
   a. Find out how much income they could receive per ton in each area.
   b. Find out how they could collect, store and then sell to make a profit.
   c. Prepare a budget for their respective area.

II. Outside Resource and Community Activities
   A. Have each group write, phone or make a personal contact to a waste collection business and find out how much income each could receive per ton in their respective area.
   B. Have a student obtain a taped interview from a local government official on any aspects of starting this type of business.
      1. What responsibility does the business community have to aid recycling by providing a market?
      2. What responsiblity does the government have to enforce recycling by forbidding the use of "throw aways", etc.?
      (cont.)

Resource and Reference Materials	Continued and Additional Su
Publications: Daydreams and Nightmares, Busch, William, 1971, 100B. Community Planning Handbook, Ginn and Co., 1970, 100Gi. Both available at I-C-E RMC	II. (cont.) C. If possible, actuall business on a class March and April, 197 D. Type of questions fo 1. Can a school spon community? 2. Kind of collectio 3. How long can cont emptying? 4. What are the disp community? 5. How are disposal
Audio-Visual: Films: Garbage, I-C-E RMC Men at Bay, I-C-E RMC Recycling, #3970 BAVI	
Community: City Government officials Community Civic Ecology Groups School administration	

Continued and Additional Suggested Learning Experiences

II. (cont.)

C. If possible, actually start and run this business on a class or school level. (See March and April, 1972, I-C-E CAP.)

D. Type of questions for student and teacher:

1. Can a school sponsored program do this in a community?
2. Kind of collection containers to meet codes.
3. How long can containers stand before emptying?
4. What are the disposal procedures in your community?
5. How are disposal funds obtained?

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT	9. Man has the ability to manage, manipulate, and change his environment.	Discipline Area Bus Subject Boo Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Students will make a cost analysis of a new industry, showing the amount to be spent on pollution abatement equipment and type. Affective: Students will discuss that industrial expansion is not necessarily progress, that growth brings growth problems as well as benefits.	I. Student-Centered in class activity A. Cost analysis 1. Original land a. Ad valorem value b. Production value/yr. c. Tax return d. Per capita income e. Environmental values 2. Land use as industrial site a. Ad valorem value b. Production value/yr. c. Tax return d. Per capita income e. Developmental cost f. Changes in environmental value B. Compare the difference of density in the area and see what amount of density has the most advantages per capita income. Example: Small farmers in Wisconsin average a little over $5,000 per year income. Large farms in Arizona make over $26,000. 1. Do they need industry to come in and give them pollution problems and less income? (cont.)
Skills to be Learned Problem solving Researching Letter writing Typing Knowledge of government services Cost benefit analysis	

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Expenses from new industry Grade 10-12

SUGGESTED LEARNING EXPERIENCES	
entered in class alysis inal land d valorem value roduction value/yr. ax return er capita income nvironmental values use as industrial d valorem value roduction value/yr. ax return er capita income evelopmental cost hanges in environ- ental value the difference of in the area and see ount of density has t advantages per income. Example: armers in Wisconsin a little over $5,000 r income. Large farms ona make over $26,000. hey need industry to in and give them ution problems and income? (cont.)	II. Outside Resource and Community Activities A. What are local industries doing relative to land use in expanding? B. Prepare a letter to an industrial developer about plans for pollution control. C. Compare present government service costs to an estimate of the service costs when new industry moves into a community. How to expand services to control pollution. Use balance sheet approach for your comparison.

Resource and Reference Materials	Continued and Additional Su
Publications: Year books Colliers Comptons World Book Britannica The Traffic Jam, I-C-E RMC DNR publications on air-water solid waste standards	I. (cont.) 2. If industry does n farm income increa C. Investigate pollution for siting new indust (California air pollu
Audio-Visual: Films: Junk Dump, I-C-E RMC The Stream, I-C-E RMC	
Community: Land developer Local zoning official Local tax assessor Officials of county government Local school system	

Is	Continued and Additional Suggested Learning Experiences
	I. (cont.) 2. If industry does not pollute the area, will farm income increase? C. Investigate pollution abatement costs necessary for siting new industry to strictest standards. (California air pollution standards)

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT: 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area: Business Edu

Subject: Bookkeeping

Problem Orientation: Depreciat per Gover Sched

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIE	II. Out Comm
Cognitive: Students will describe the effect of accelerated depreciation on financial statements. Affective: Students will realize business problems related to short term gains vs long term effects on society.	I. Student-Centered in class activity A. Student must have prior knowledge of methods of depreciation. Tax laws. B. Discuss the following: 1. Why accelerated depreciation rates? a. Effect on profit and income taxes. b. Effect on cash flow. 2. Questions and answers: a. What does it mean to have accelerated depreciation on income statement? b. Effect on balance sheet? c. Dividends to stock-holders? 3. Long term depreciation on demand for equipment. 4. Corporate goals vs society goals. 5. What have short term economic thoughts done to accumulation of unwanted equipment? 6. What has the solid waste from industrial plants (cont.)	A. H C m d B. I a f o c d m
Skills to be Learned Analysis of financial statements Problem solving Role playing in decisions Listening		

gains may

nmental

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Depreciation Rates per Government Schedule Grade 10-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Student must have prior knowledge of methods of depreciation. Tax laws.
   B. Discuss the following:
      1. Why accelerated depreciation rates?
         a. Effect on profit and income taxes.
         b. Effect on cash flow.
      2. Questions and answers:
         a. What does it mean to have accelerated depreciation on income statement?
         b. Effect on balance sheet?
         c. Dividends to stock-holders?
      3. Long term depreciation on demand for equipment.
      4. Corporate goals vs society goals.
      5. What have short term economic thoughts done to accumulation of unwented equipment?
      6. What has the solid waste from industrial plants

(cont.)

II. Outside Resource and Community Activities
   A. Have a member of a CPA firm discuss methods of depreciation.
   B. If possible, have a tax consultant from either state or federal gov't. come to class and discuss depreciation methods.

Resource and Reference Materials	Continued and Additional Su
Publications: Tax publications on depreciation - state and federal The Wis. Dept. of Natural Resources Wis. Conservation Bulletin, Madison, Wi.	I. (cont.) done to environmental 7. What has the state of solid waste? 8. As our stock-pile of happening to natural
Audio-Visual: Film: Junk Dump, I-C-E RMC Filmstrip: Kt 5 Eye Gate House, Inc., 1970, Aggradation - Degradation 10 filmstrips, I-C-E RMC	
Community: Visit various salvage auto dumps and see the age of types in junk pile Note: Disposal by individuals of community left for rubbish collection	

aterials	Continued and Additional Suggested Learning Experiences
reciation -	I. (cont.) done to environmental sites? 7. What has the state of Wis. DNR done in handling solid waste? 8. As our stock-pile of solid waste grows, what is happening to natural resource deposits?
l Resources tin,	
c., 1970, ion MC	
uto dumps es in	
viduals rubbish	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT 11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Business Educ

Subject Bookkeeping

Problem Orientation Environment Alterations

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIEN	
Cognitive: Identify 2 competitive firms and 2 or 3 harmful effects of this competition to our environment. Affective: Students will develop a feeling of urgency in regard to the depletion of our natural resources for this purpose. Skills to be Learned Research Report writing Interviewing	I. Student-Centered in class activity A. Draw up a questionnaire to determine the following: 1. Name of business 2. Type of product and by-product 3. Raw materials used 4. Natural resources used 5. Type of pollution B. List businesses within the state that make the same or similar product. C. Research the availability and extent of the raw materials used. D. Discuss with the students the use of raw materials by businesses and the harmful effects that are involved in the production of a product. E. An example of both competitive business would be: 1. Name Fort Howard Paper Co. vs Charmin Paper Co. 2. Products Paper or other products Paper or others (cont.)	II. Outsi Commun A. Inv per bus the wha con res pro spe B. DNR sen the bus nat

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significant

ons over time.

Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Environmental Alterations Grade 10-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Draw up a questionnaire to determine the following:
   1. Name of business
   2. Type of product and by-product
   3. Raw materials used
   4. Natural resources used
   5. Type of pollution

B. List businesses within the state that make the same or similar product.

C. Research the availability and extent of the raw materials used.

D. Discuss with the students the use of raw materials by businesses and the harmful effects that are involved in the production of a product.

E. An example of both competitive business would be:

1. Name		
Fort Howard Paper Co.	vs	Charmin Paper Co.
2. Products		
Paper or other products		Paper or others

(cont.)

II. Outside Resource and Community Activities

A. Invite research personnel from local businesses and have them tell what is what is being done to conserve the natural resources used in the production of their specific products.

B. DNR or UWGB representatives to discuss the impact of various businesses on our natural resources.

Resource and Reference Materials	Continued and Additional Suggested
Publications: VF 10 years to Save Mankind, 1970, MacMallan, Ralph, I-C-E RMC The Limits to Growth, Meadows, Donnella H., Universe Books, 1972. Audio-Visual: Ecology - simulation game I-C-E RMC Recycling resources - I-C-E RMC Community: DNR or UWGB speaker Research personnel from businesses Industrialists	I. (cont.) 3. Raw Materials Pulp P 4. Natural Resources Trees T 5. Type of Pollution Air and Water A (Students to explain each ty

	Continued and Additional Suggested Learning Experiences	
	I. (cont.)	
	3. Raw Materials	
	Pulp	Pulp
	4. Natural Resources	
	Trees	Trees
	5. Type of Pollution	
	Air and Water	Air and Water
	(Students to explain each type of pollution.)	

ESEA Title III - 59-70-0135-2 Project I-C-E

CONCEPT	12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.	Discipline Area Business Edu Subject Bookkeeping Problem Orientation Privat Ownershi

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERI
Cognitive: Students will interpret data relative to environmental costs and their long range beneficial effects upon an individual's rights. Affective: Students will be able to recognize that the abuse of "free goods" by businesses is a costly mistake and it will require money to correct. The cost could be passed on to the consumer.	I. Student-Centered in class activity A. Students orally list 3 local business corporations. 1. Analyze the ownership of these companies. 2. What type of organization are they? B. Students send for information from these companies concerning their activities in the area of pollution and the costs during the last 5 years. C. Students write a response to the following statement: "Owners of business spend money to conserve the rights of individuals in the long run."
Skills to be Learned Discussion Interviewing Letter writing Analyzing costs	

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Discipline Area Business Education

Subject Bookkeeping

Problem Orientation Private Ownership Grade 10-12

	SUGGESTED LEARNING EXPERIENCES	
o al l's be e re st	I. Student-Centered in class activity A. Students orally list 3 local business corporations. 1. Analyze the ownership of these companies. 2. What type of organization are they? B. Students send for information from these companies concerning their activities in the area of pollution and the costs during the last 5 years. C. Students write a response to the following statement: "Owners of business spend money to conserve the rights of individuals in the long run."	II. Outside Resource and Community Activities A. Students can write to 3 companies and obtain speakers for the class that will explain what their company has done in the area of environmental protection for the past 5 years. B. Have students mention that this is a bookkeeping class (in the letter) and therefore are primarily interested in figures and analyzing these figures. C. Have students prepare questions 2 weeks ahead of time and send questions to the speakers so they can prepare answers to them.

Resource and Reference Materials	Continued and Additional Suggested
Publications: 100 6t Community Planning Handbook, I-C-E RMC Environmental Handbook, Garrett De Bell, Ballantine Books, Inc. Audio-Visual: Filmstrip: FS Stl Environmental Pollution - Our World in Crisis, 6 filmstrips plus study guide, I-C-E RMC Community: Speakers from area production companies	

Materials	Continued and Additional Suggested Learning Experiences
<u>Handbook</u>, ett Inc.	
<u>ion -</u> n-	
n	

PROJECT I-C-E Episode Evaluation Form (Reproduce or dupli

Please fill in:
Subject: _____

Grade: _____

Concept No. Used: _____

In commenting on each episode used in y
form. Feel free to adapt it and add more
your critiques and comments - negative an
hand column, please rate (poor, good, exc
make specific comments or suggestions if
vided to help us make this a more usable

Poor	Good	Exc.	
			I. Behavioral Objectives A. Cognitive:
			B. Affective:
			II. Skills Developed
			III. Suggested Learning Experiences A. In Class:
			B. Outside & Community Activities:
			IV. Suggested Resource & Reference Materials (specific suggestions & comments)

Se

Episode Evaluation Form (Reproduce or duplicate as needed)

In commenting on each episode used in your class, please use this form. Feel free to adapt it and add more pages. Let us know all your critiques and comments - negative and positive. In the left-hand column, please rate (poor, good, excellent) each item. Also, make specific comments or suggestions if possible in the space provided to help us make this a more usable guide. Thank you.

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